

INDIANA
LIMESTONE
INSTITUTE

BEDFORD

INDIANA

STRUCTURAL
DETAILS

Digitized by:



ASSOCIATION FOR PRESERVATION TECHNOLOGY
www.apti.org

For the

BUILDING TECHNOLOGY HERITAGE LIBRARY

<https://archive.org/details/buildingtechnologyheritagelibrary>

From the collection of:



SOUTHEASTERN ARCHITECTURAL ARCHIVE
SPECIAL COLLECTIONS
HOWARD-TILTON MEMORIAL LIBRARY

<http://seaa.tulane.edu>

Foreword

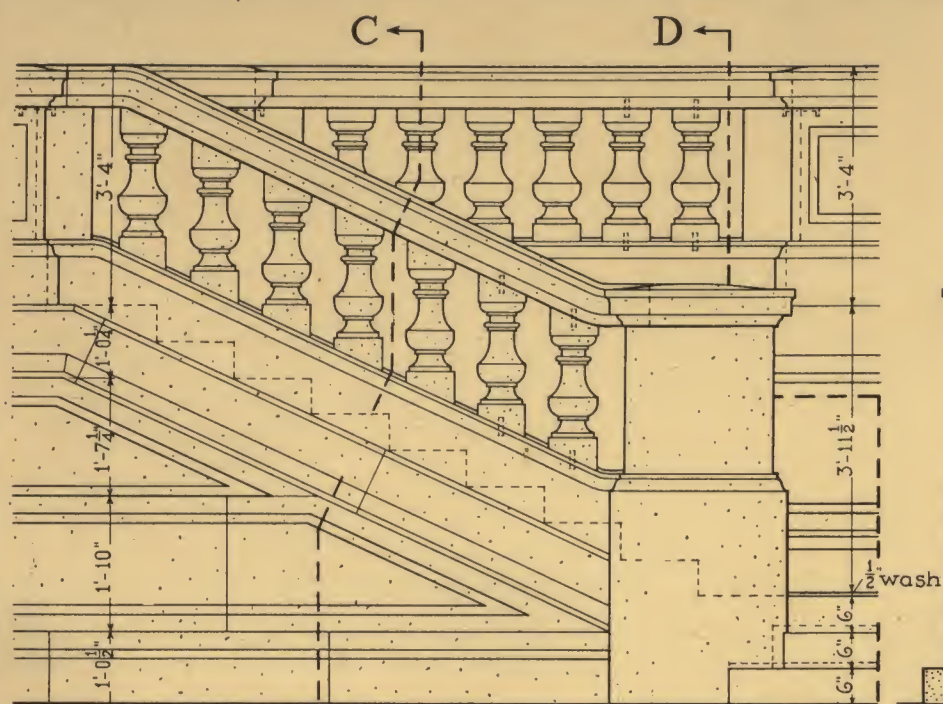
In the issuance of this series of cut stone details, we are hopeful that architects will find these plates to be always interesting and frequently helpful.

Architects having any particular problem relating to the detailing, treatment or handling of cut Indiana Limestone are earnestly invited to submit these problems to the Technical Division of the Indiana Limestone Institute.

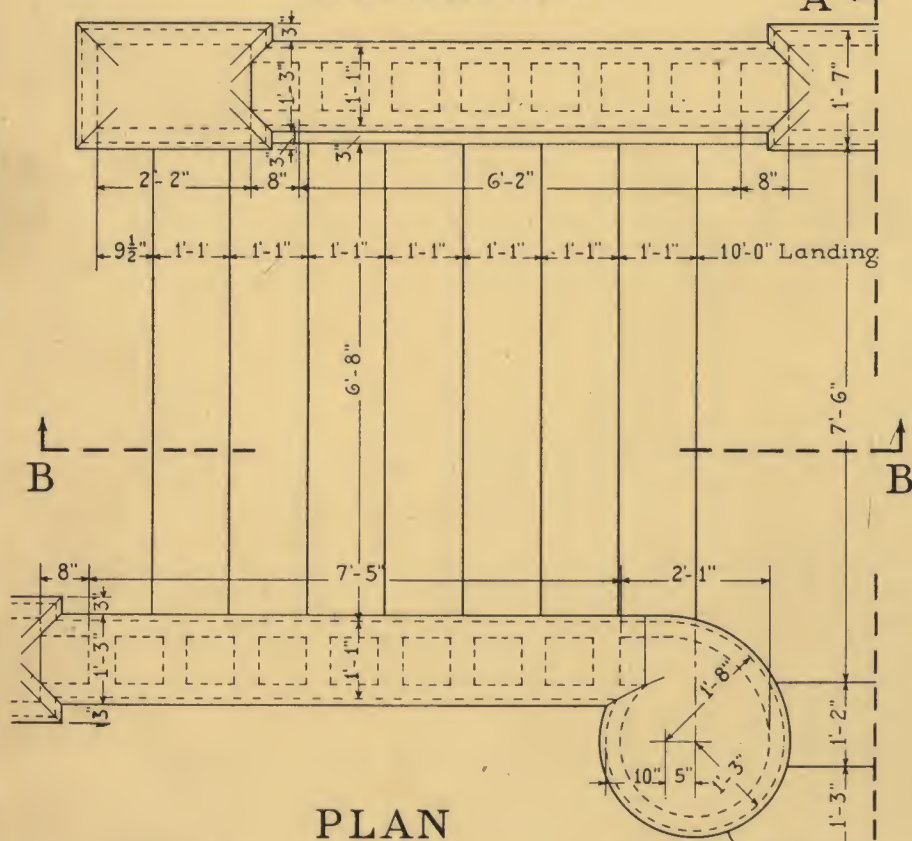
The services of our technicians will be applied to these problems and of course these services will be entirely gratuitous.



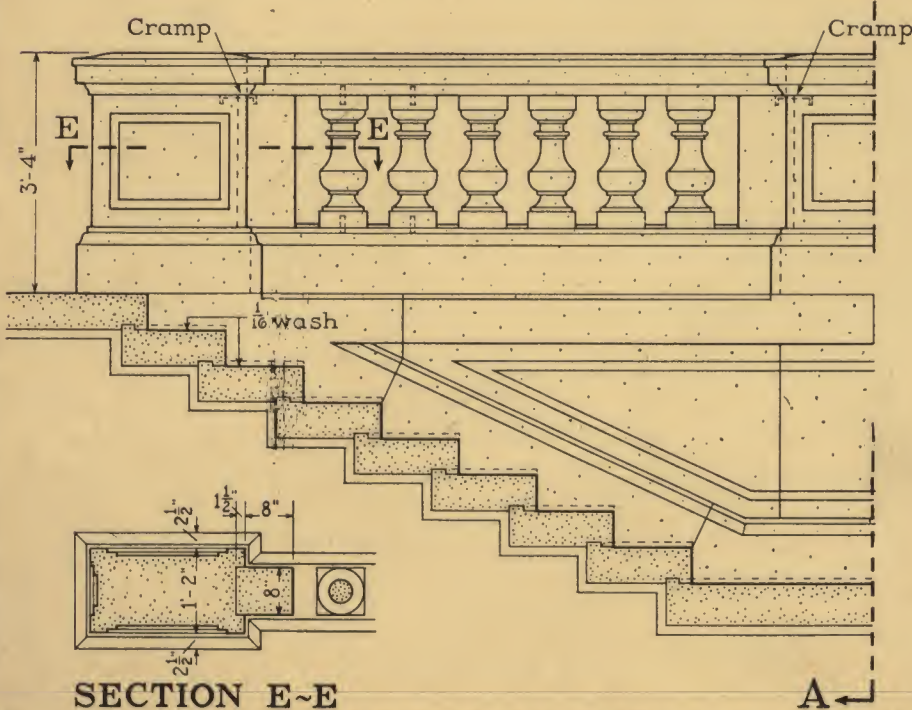
STRUCTURAL DESIGN FOR INDIANA LIMESTONE



ELEVATION

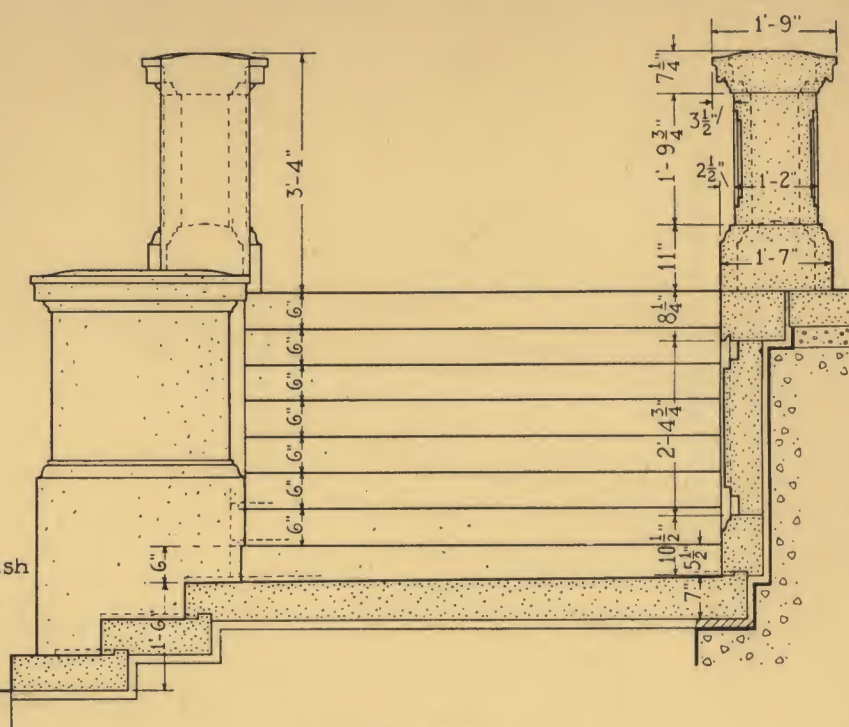


PLAN

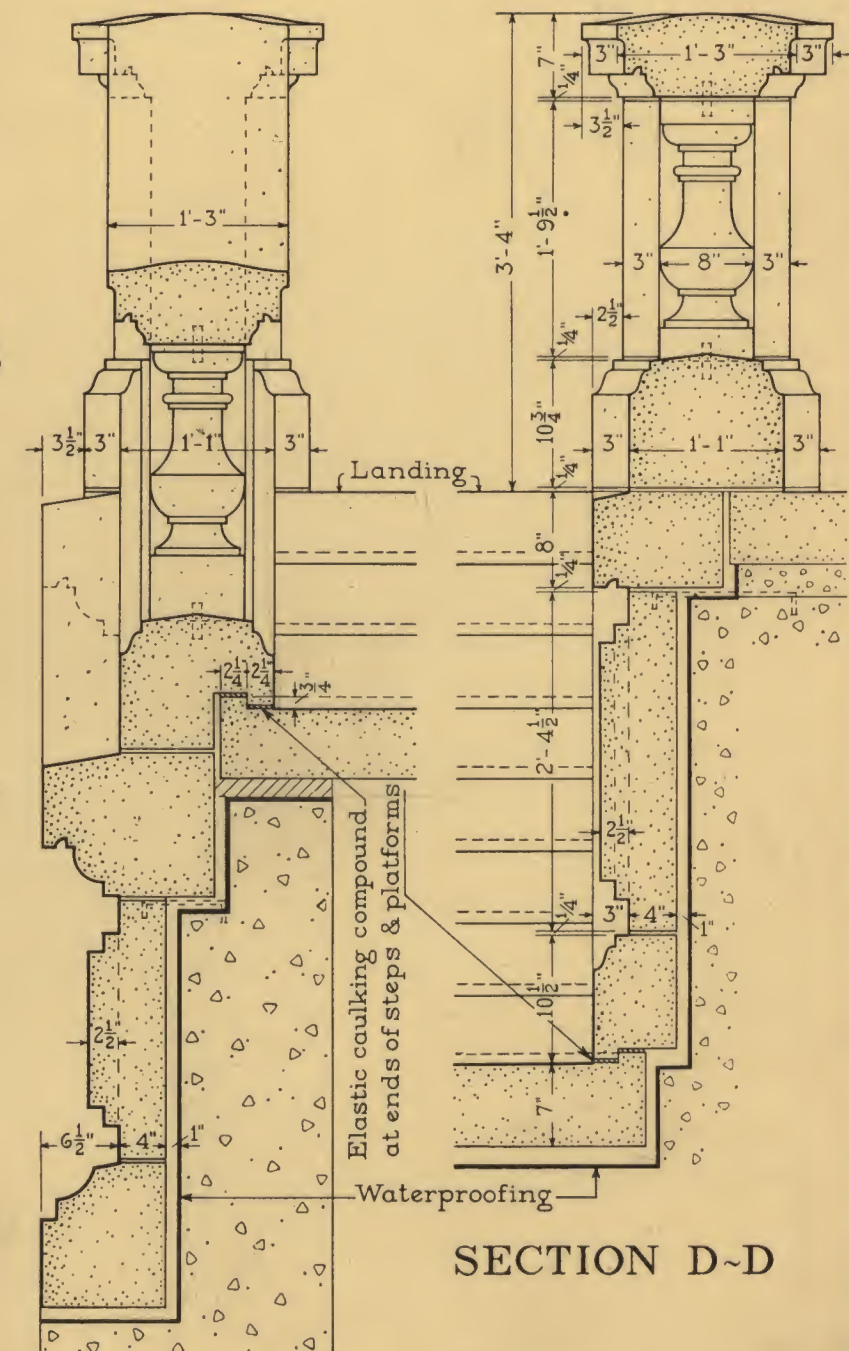


SECTION E-E

SECTION B-B



SECTION A-A



SECTION D-D

SECTION C-C

**THE NATION'S
BUILDING
STONE**

STAIRWAYS
Recommended Construction of Steps and Rails
to Prevent Displacement.

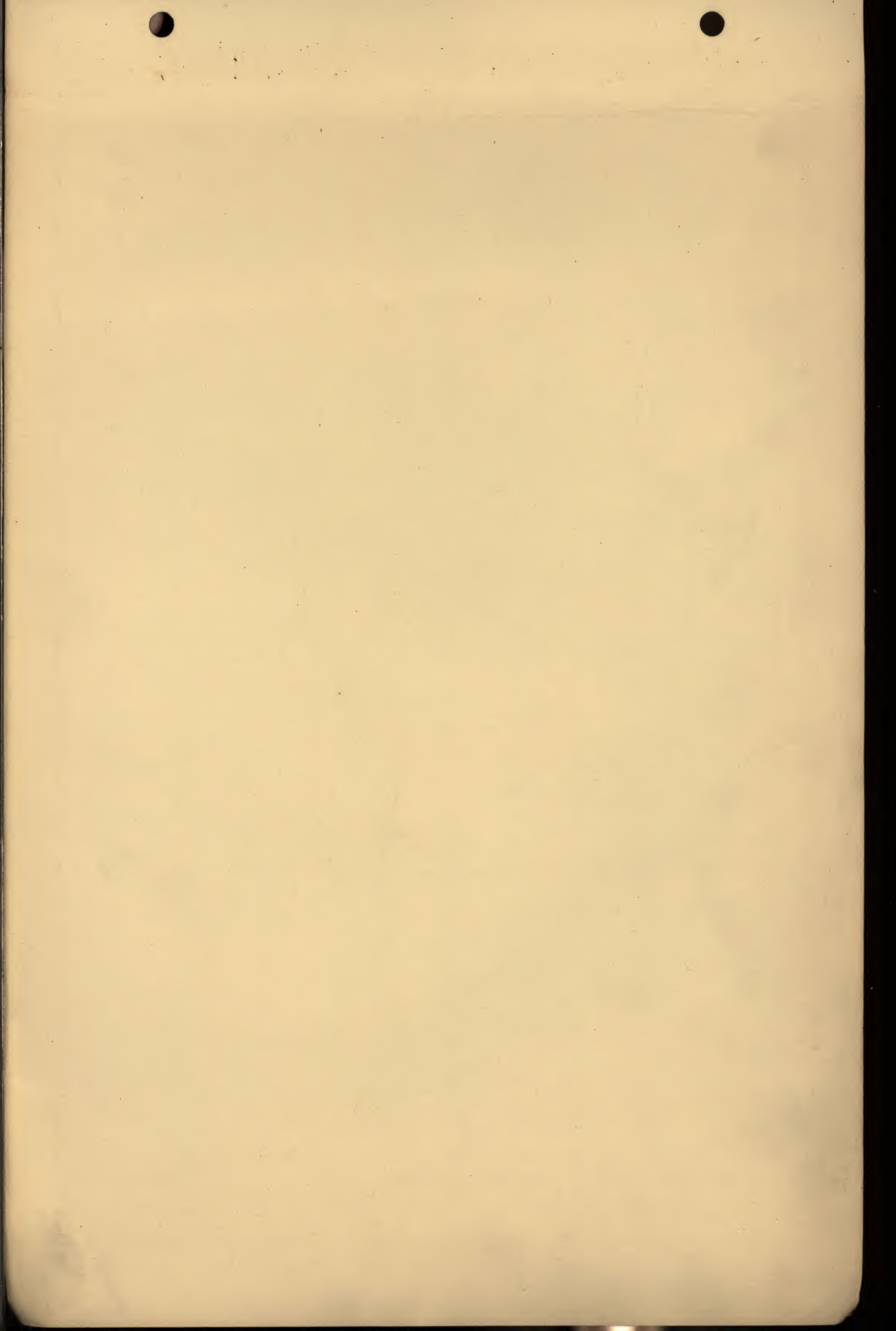
DRAWING Φ -18

Binder File
Classification } 87.1

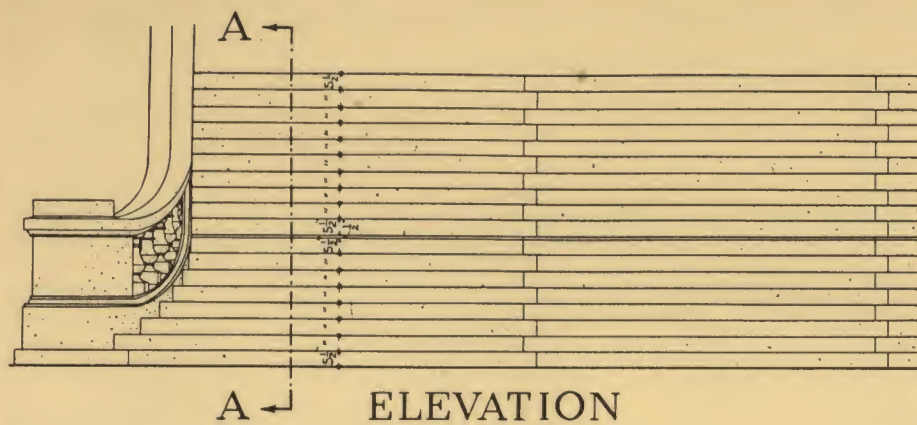
INDIANA LIMESTONE INSTITUTE - - BEDFORD, INDIANA

"PREPARED AND COPYRIGHTED BY INDIANA LIMESTONE COMPANY, INC." - - "USED AND PUBLISHED BY INDIANA LIMESTONE INSTITUTE BY PERMISSION INDIANA LIMESTONE COMPANY, INC."

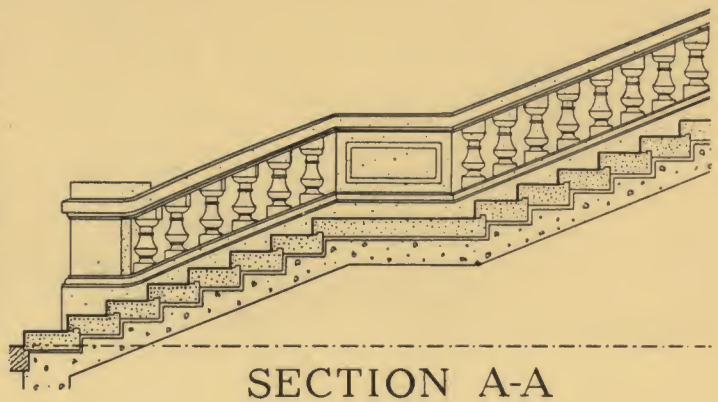
LITHOGRAPHED IN U. S. A.



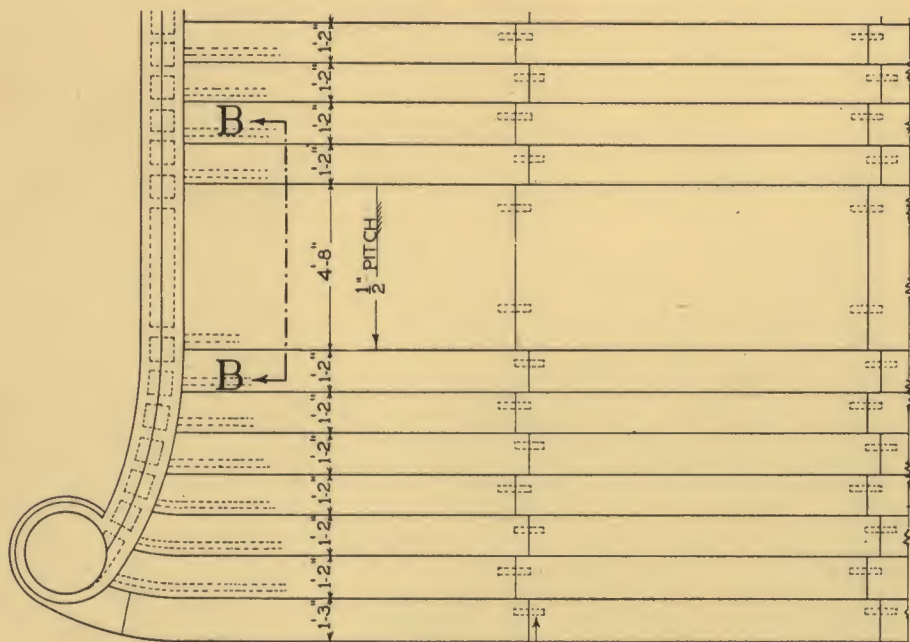
STRUCTURAL DESIGN FOR INDIANA LIMESTONE



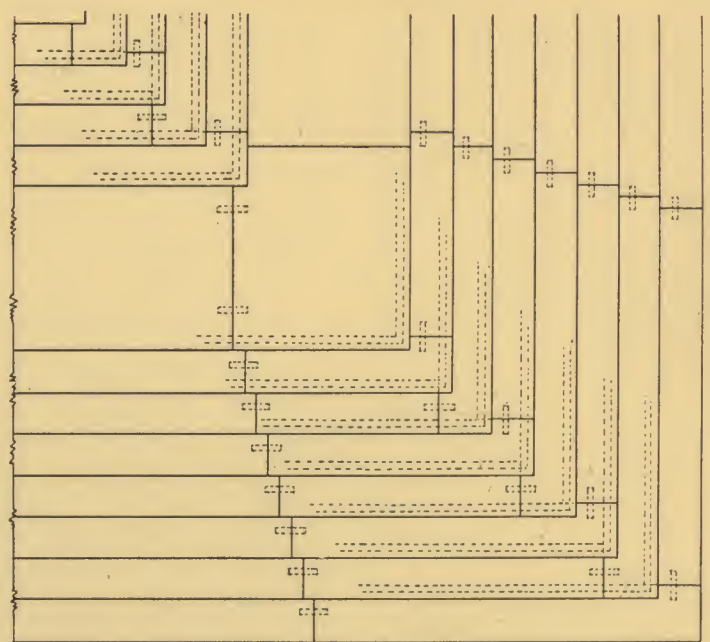
ELEVATION



SECTION A-A



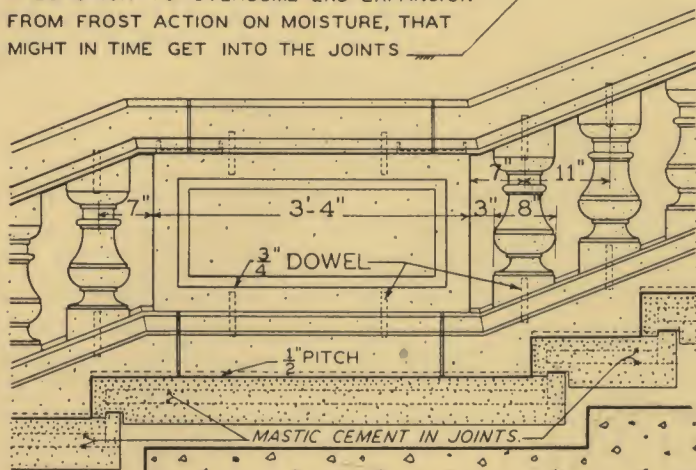
PLAN



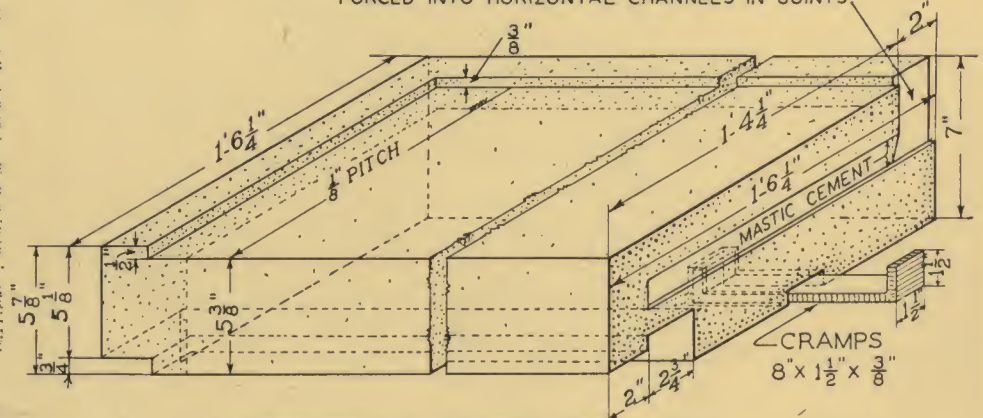
NOTE:-

CRAMPS UNDER JOINTS OF STEPS ARE AN ADDED PRECAUTION TO OVERCOME END EXPANSION FROM FROST ACTION ON MOISTURE, THAT MIGHT IN TIME GET INTO THE JOINTS

NOTE:- CHECKS AT JOINTS ON BACK OF STEPS ARE TO PROVIDE OPENINGS THROUGH WHICH MASTIC CAN BE FORCED INTO HORIZONTAL CHANNELS IN JOINTS

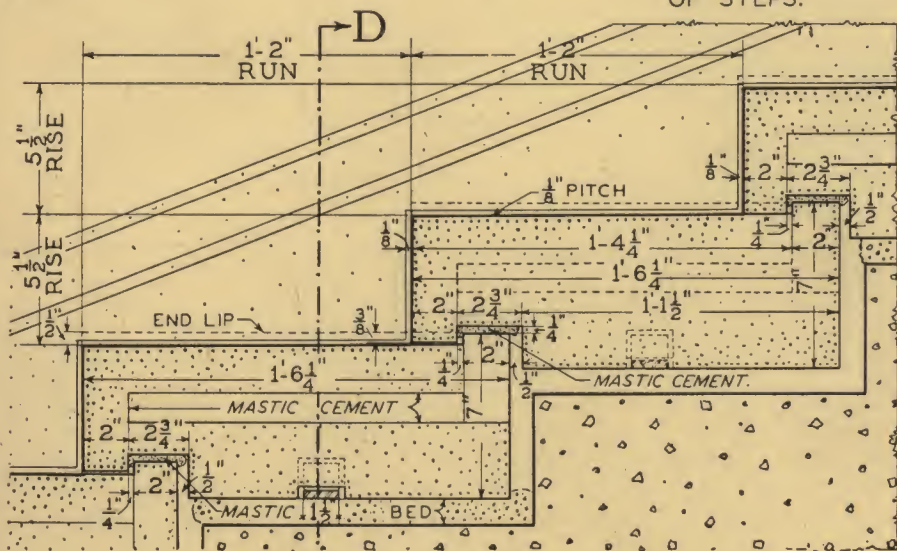


SECTION B-B

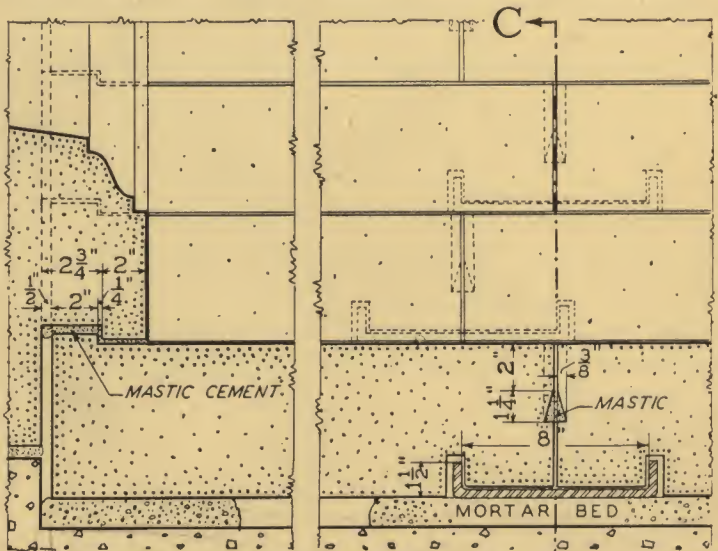


ISOMETRIC VIEW OF STEP

✓ CHECKS IN BOTTOM OF CURB, AND LIPS ON END STEPS FITTING INTO SAME, PREVENT DISPLACEMENT OF CURB.
✓ LIPS AT BACK OF STEPS FITTING INTO BOTTOMS OF STEPS ABOVE, PREVENT FORWARD MOVEMENT BY FROST ACTION ON MOISTURE BACK OF STEPS.



SECTION C-C



SECTION D-D

C.W. NOTHNAGEL, DEL.

THE NATION'S
BUILDING
STONE

STEPS AND CURBS

Construction for Steps and Curbs to
Prevent Displacement

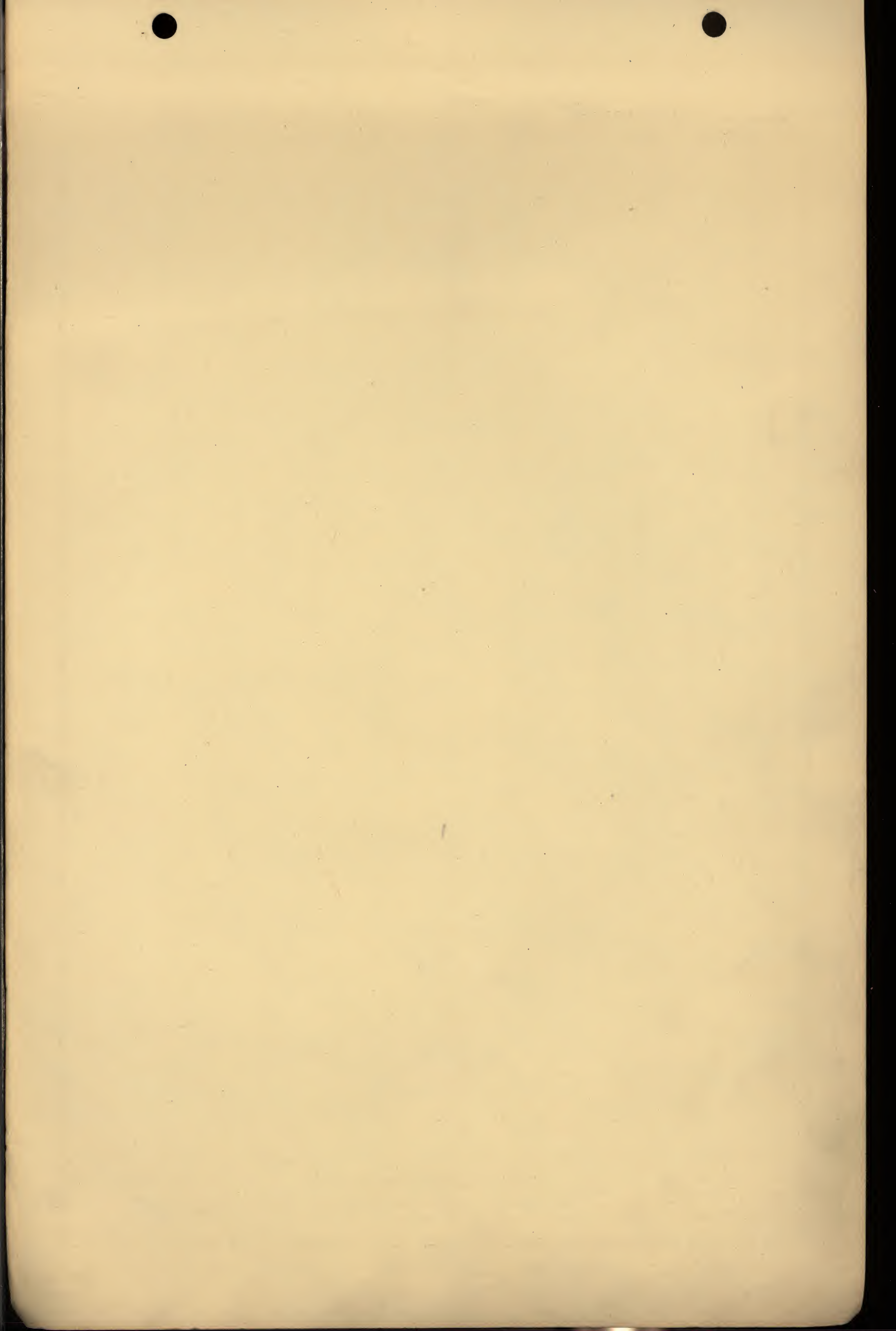
DRAWING Φ -34

Binder File } 87.2
Classification }

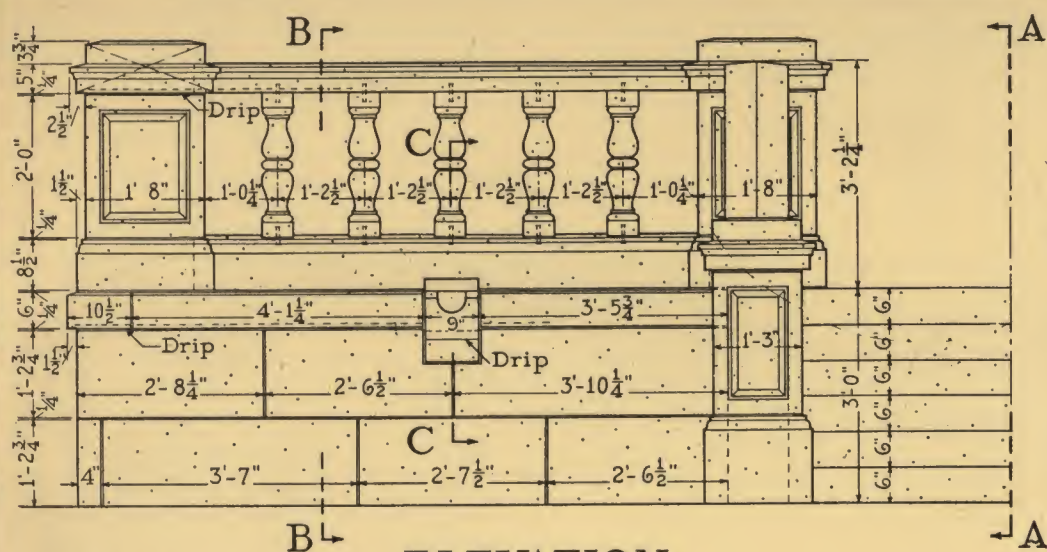
INDIANA LIMESTONE INSTITUTE - - BEDFORD, INDIANA

"PREPARED AND COPYRIGHTED BY INDIANA LIMESTONE COMPANY, INC." - - "USED AND PUBLISHED BY INDIANA LIMESTONE INSTITUTE BY PERMISSION INDIANA LIMESTONE COMPANY, INC."

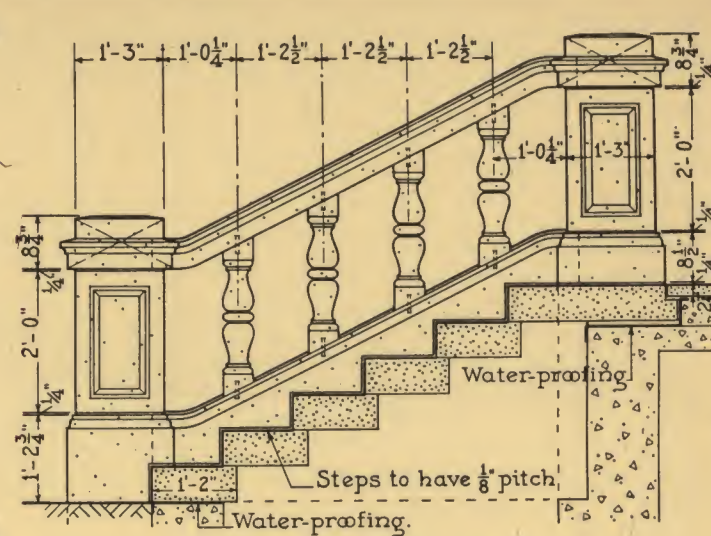
LITHOGRAPHED IN U.S.A.



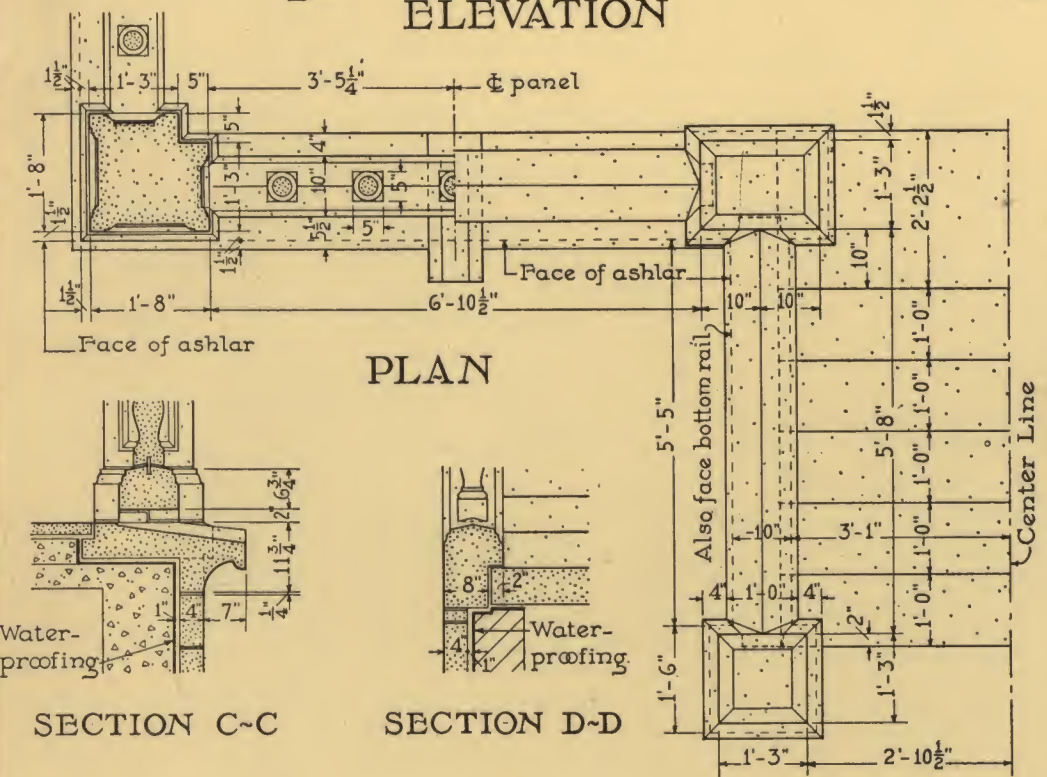
STRUCTURAL DESIGN FOR INDIANA LIMESTONE



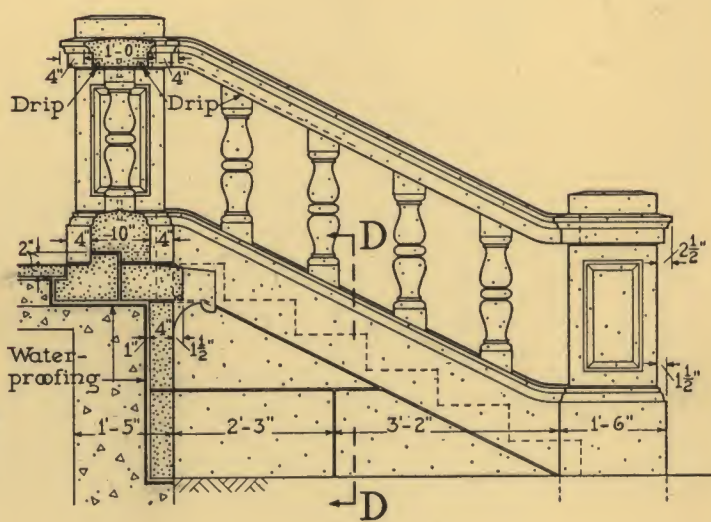
ELEVATION



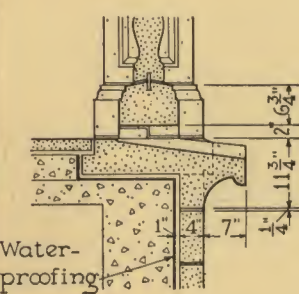
SECTION A~A



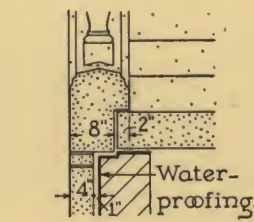
PLAN



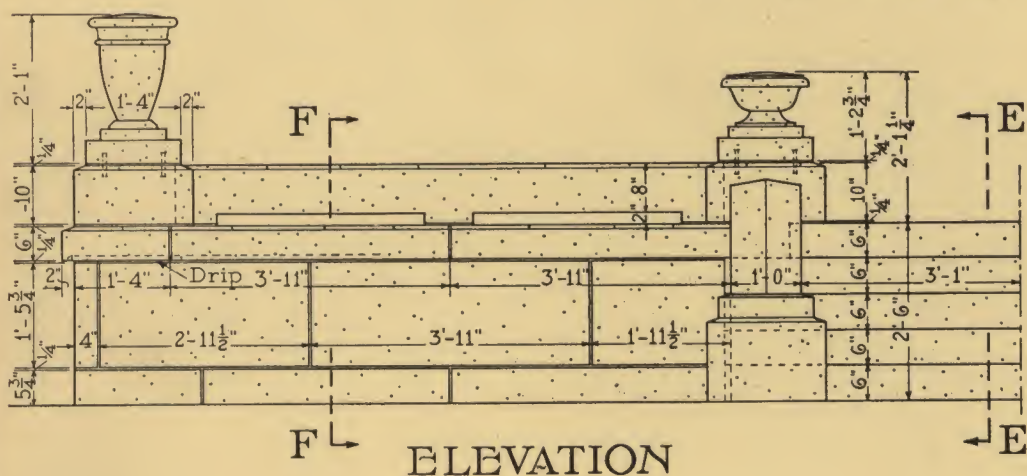
SECTION B~B



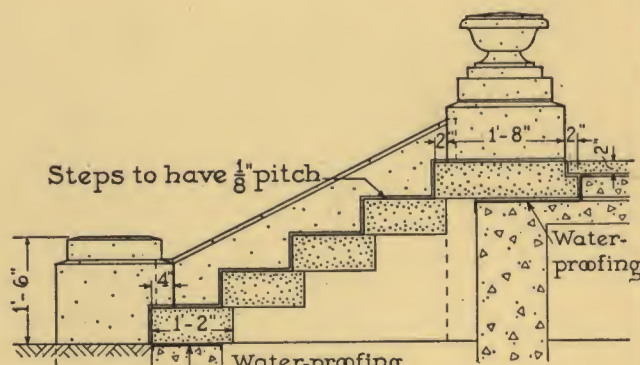
SECTION C~C



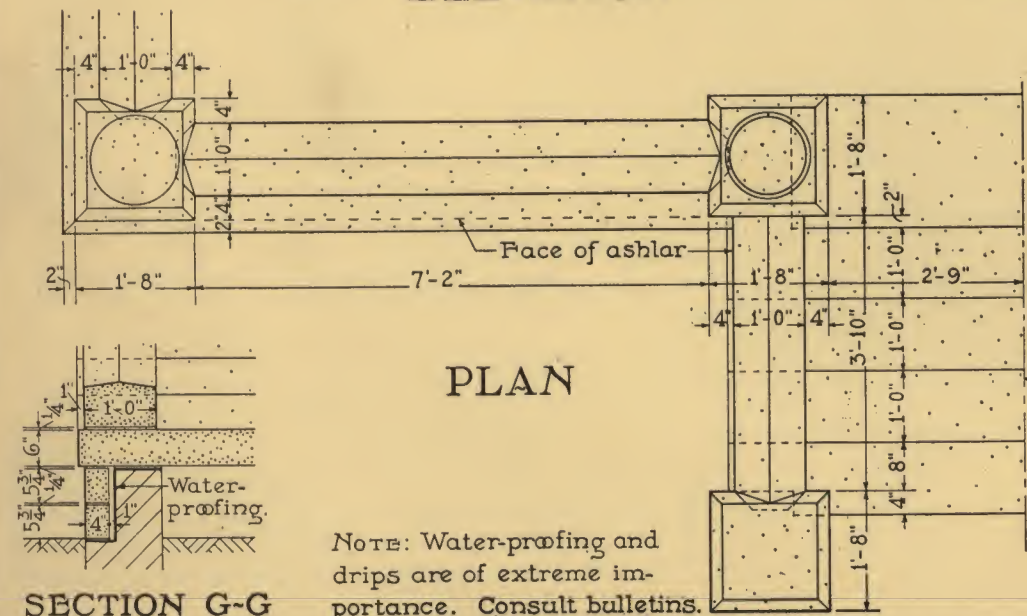
SECTION D~D



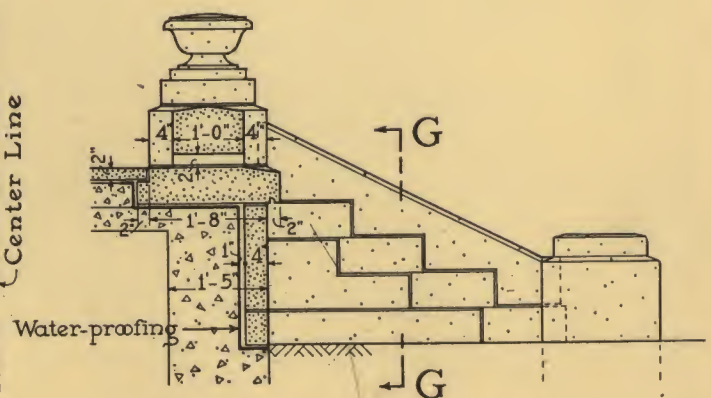
ELEVATION



SECTION E~E



PLAN



SECTION F~F

SECTION G~G

NOTE: Water-proofing and drips are of extreme importance. Consult bulletins.

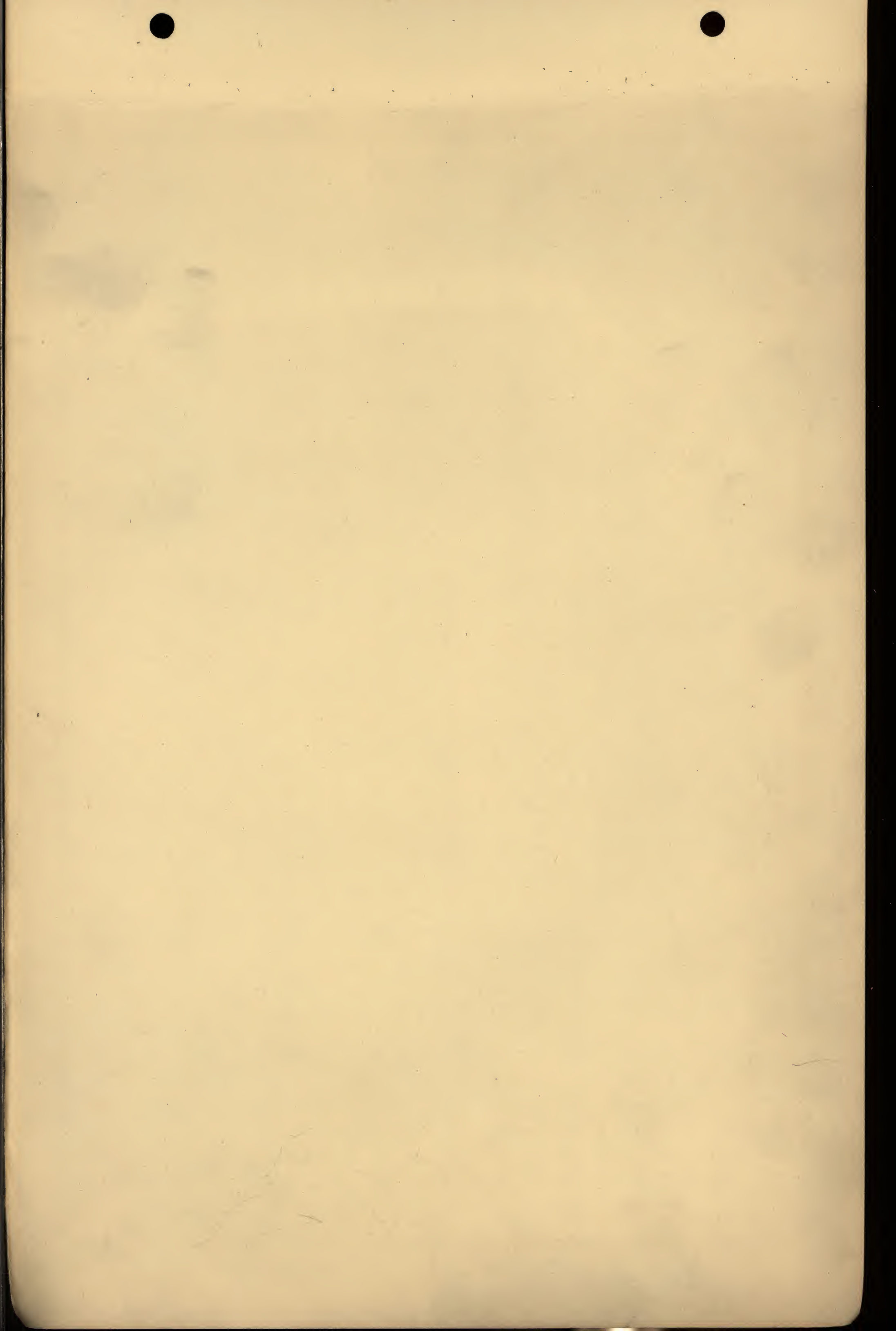
THE NATION'S
BUILDING
STONE

TERRACES

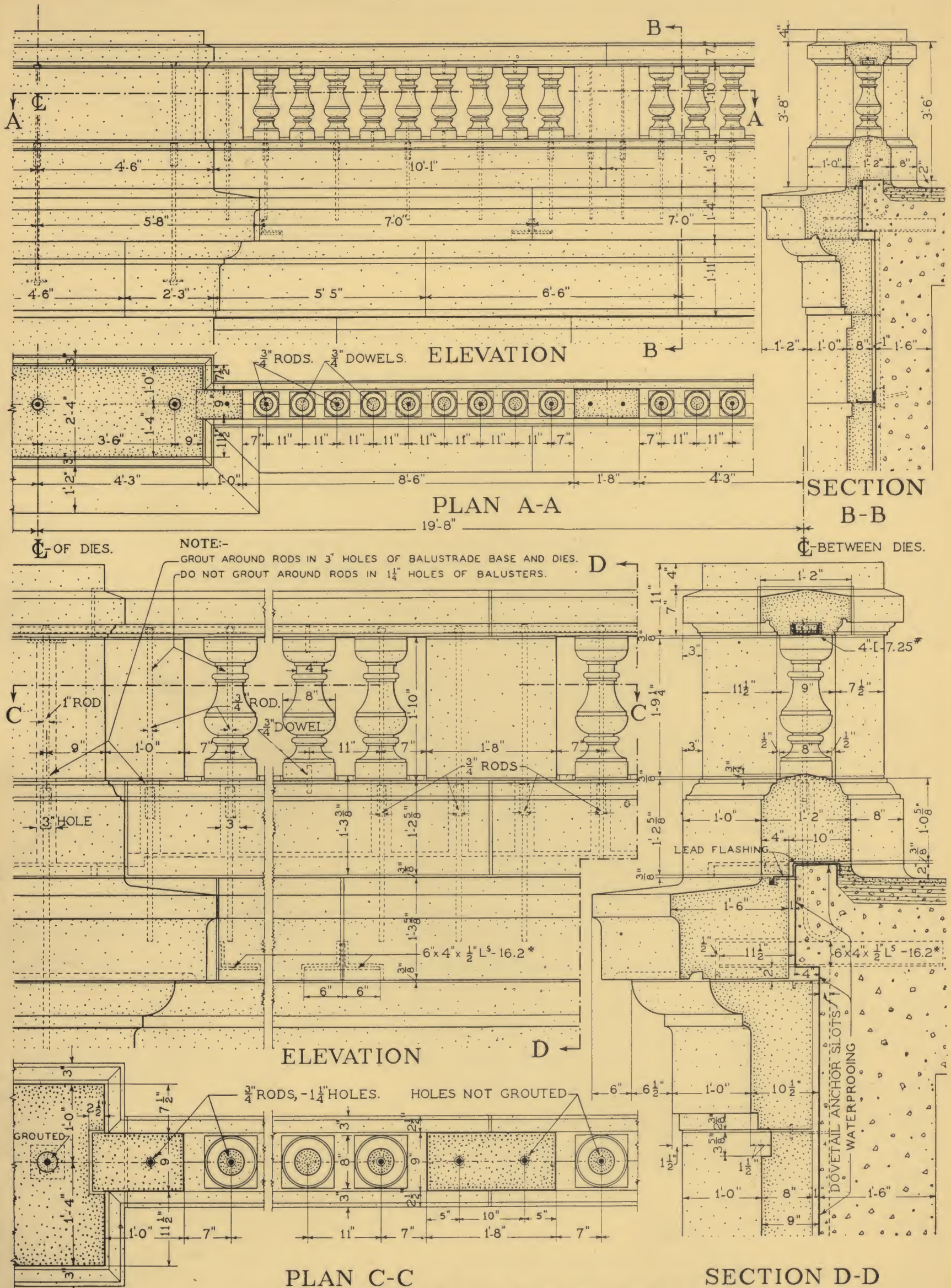
Step and Balustrade Construction showing
protection against Staining and Efflorescence

DRAWING D-8

Binder File } 81.1
Classification }



STRUCTURAL DESIGN FOR INDIANA LIMESTONE



C. W. NOTHNAGEL, DEL.

**THE NATION'S
BUILDING
STONE**

**BALUSTRADE
STONE DETAILS**
For Viaducts and Bridges, Featuring Special
Construction that will withstand Heavy Impact

DRAWING Φ -32

Binder File } 75.1
Classification }

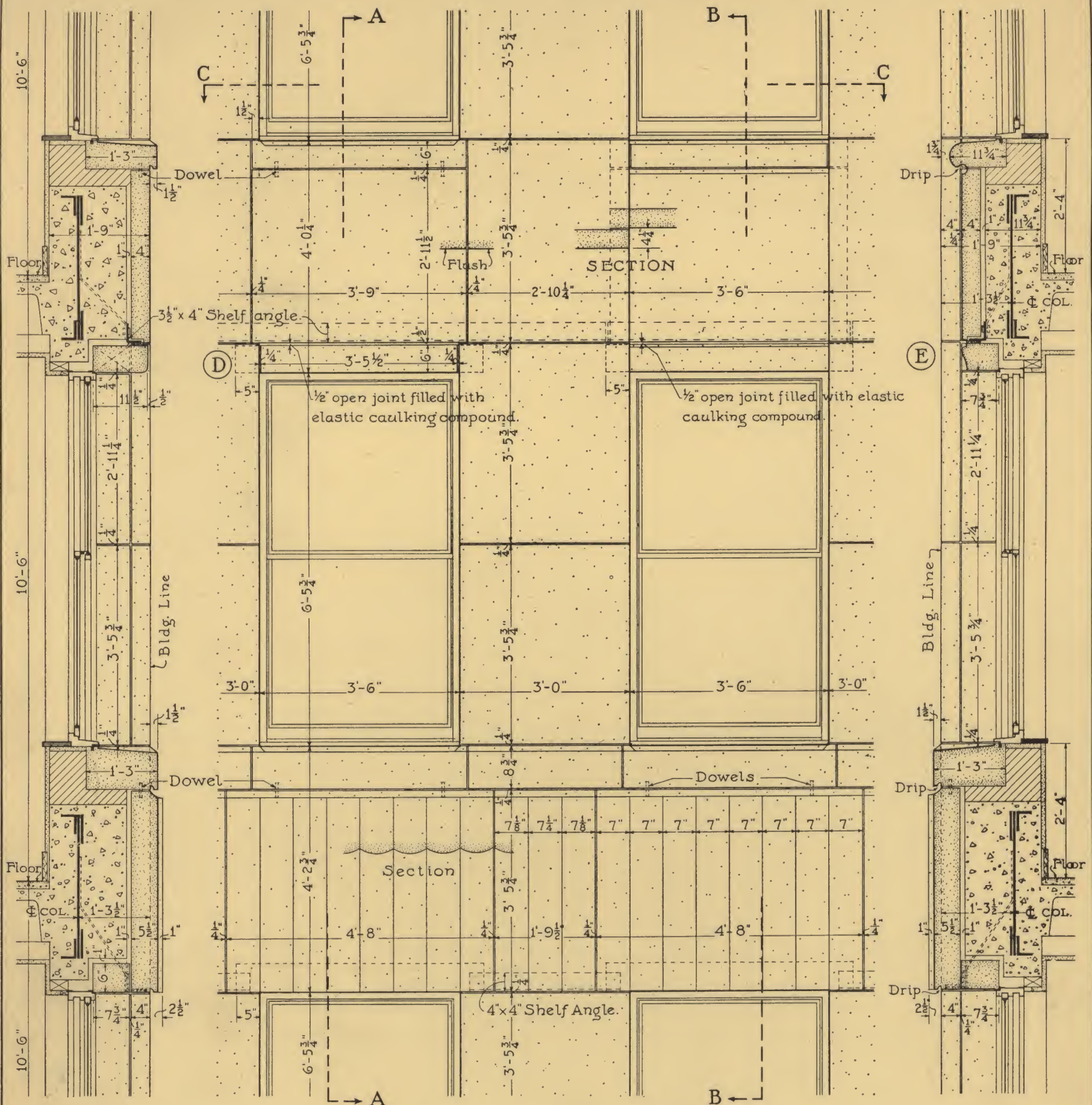
INDIANA LIMESTONE INSTITUTE - - BEDFORD, INDIANA

PREPARED AND COPYRIGHTED BY INDIANA LIMESTONE COMPANY, INC. - - USED AND PUBLISHED BY INDIANA LIMESTONE INSTITUTE BY PERMISSION INDIANA LIMESTONE COMPANY, INC.

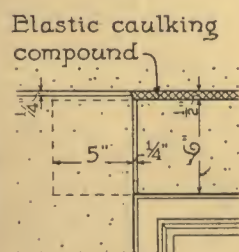
LITHOGRAPHED IN U. S. A.



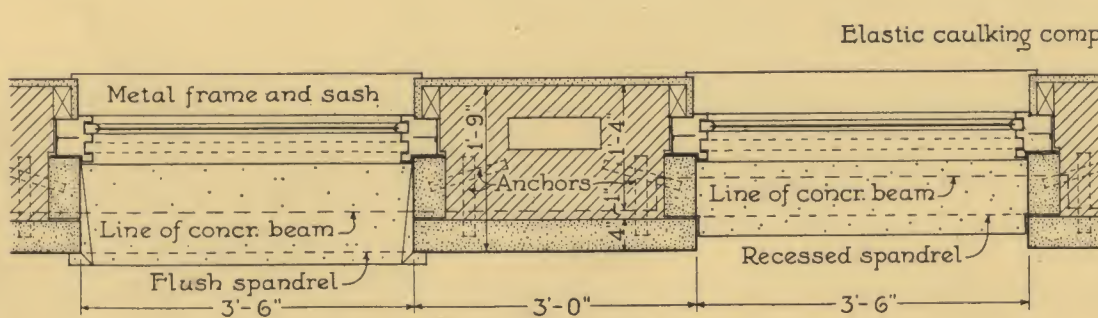
STRUCTURAL DESIGN FOR INDIANA LIMESTONE



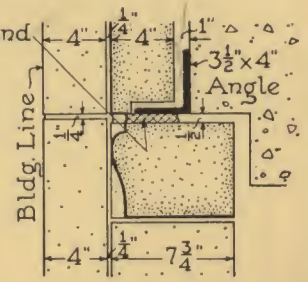
SECTION A-A ~ ELEVATION OF FLUSH & RECESSED SPANDRELS ~ SECTION B-B



ELEVATION AT (D)



PLAN ON LINE C-C



SECTION AT (E)
Scale 1" = 1'-0"

THE NATION'S
BUILDING
STONE

SPANDRELS

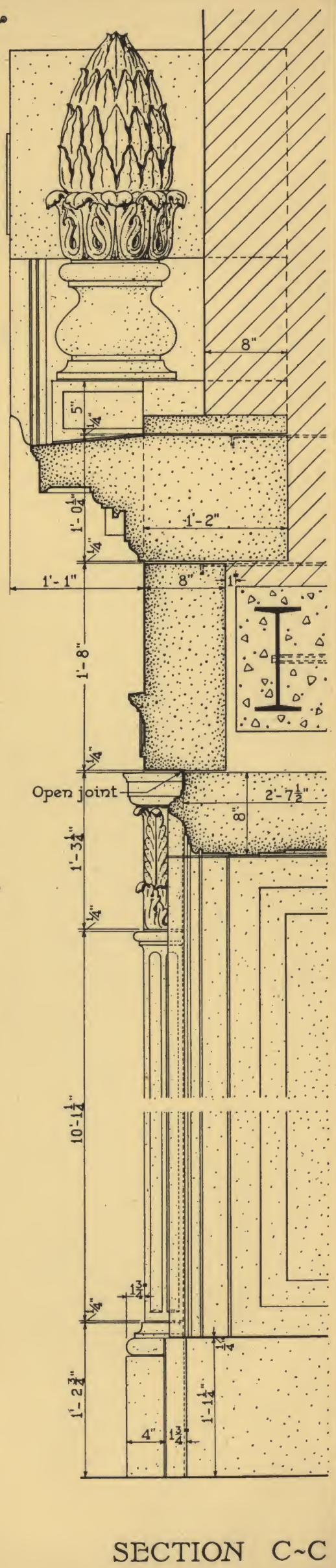
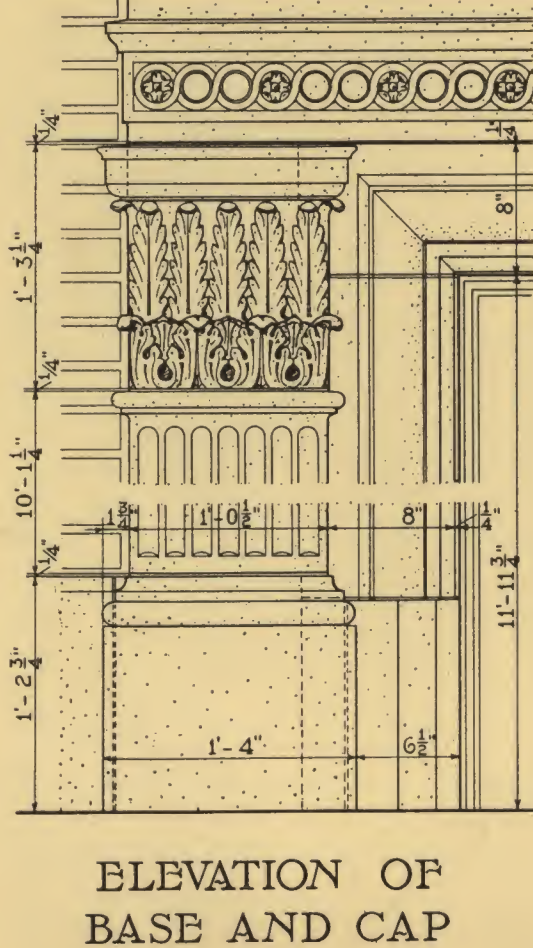
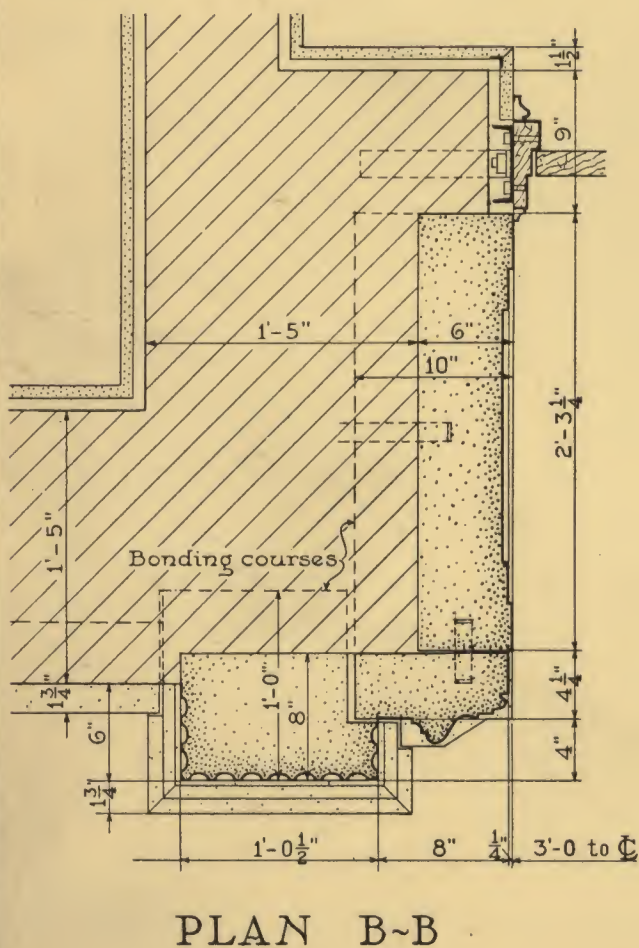
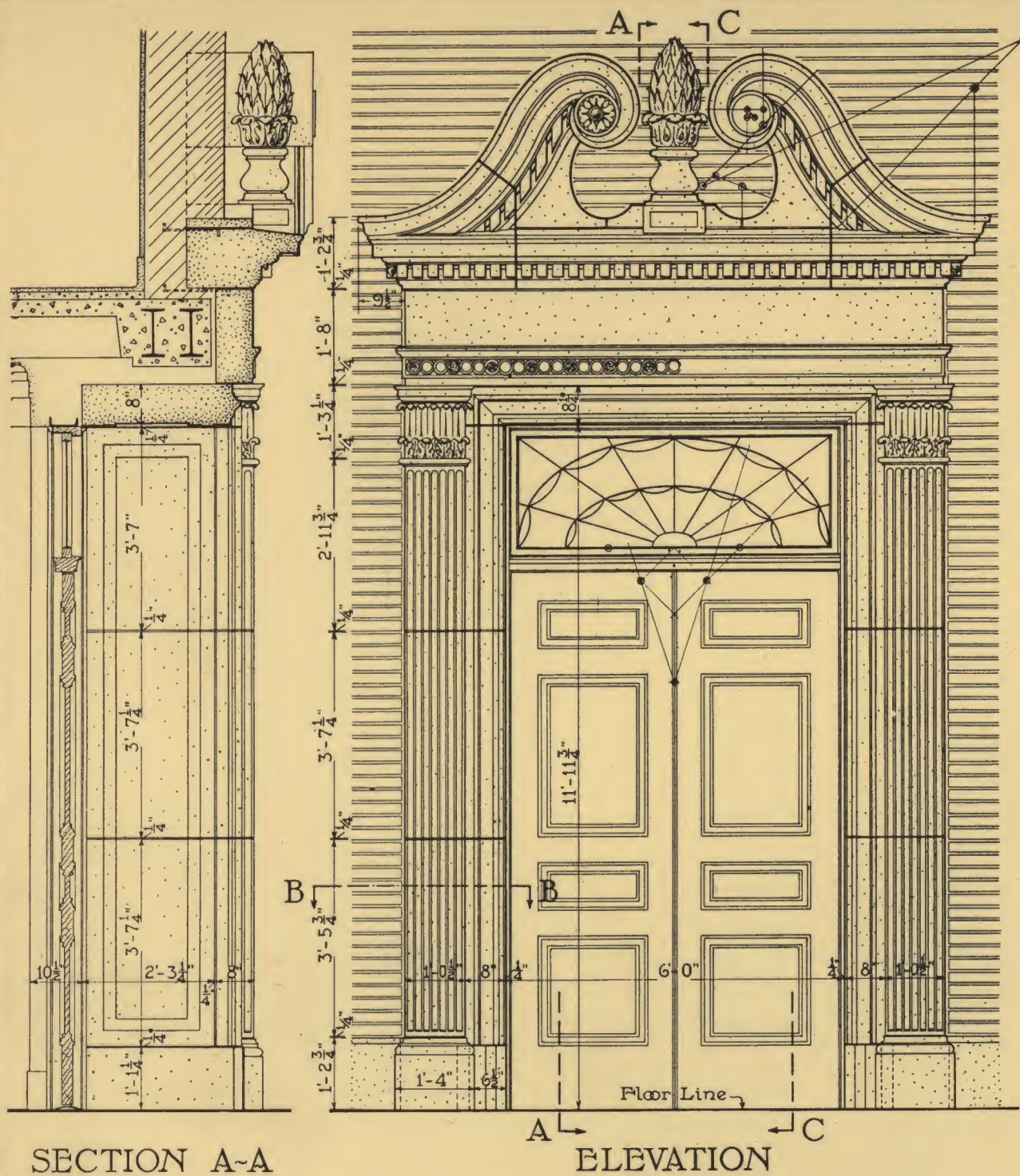
Spandrels for Modern Office Buildings
showing Flush and Recessed Treatments

DRAWING Φ -1

Binder File } 51.1
Classification }



STRUCTURAL DESIGN FOR INDIANA LIMESTONE



THE NATION'S
BUILDING
STONE

ENTRANCE
Georgian Colonial Entrance
Feature

DRAWING Φ -4
Binder File } 25.1
Classification }

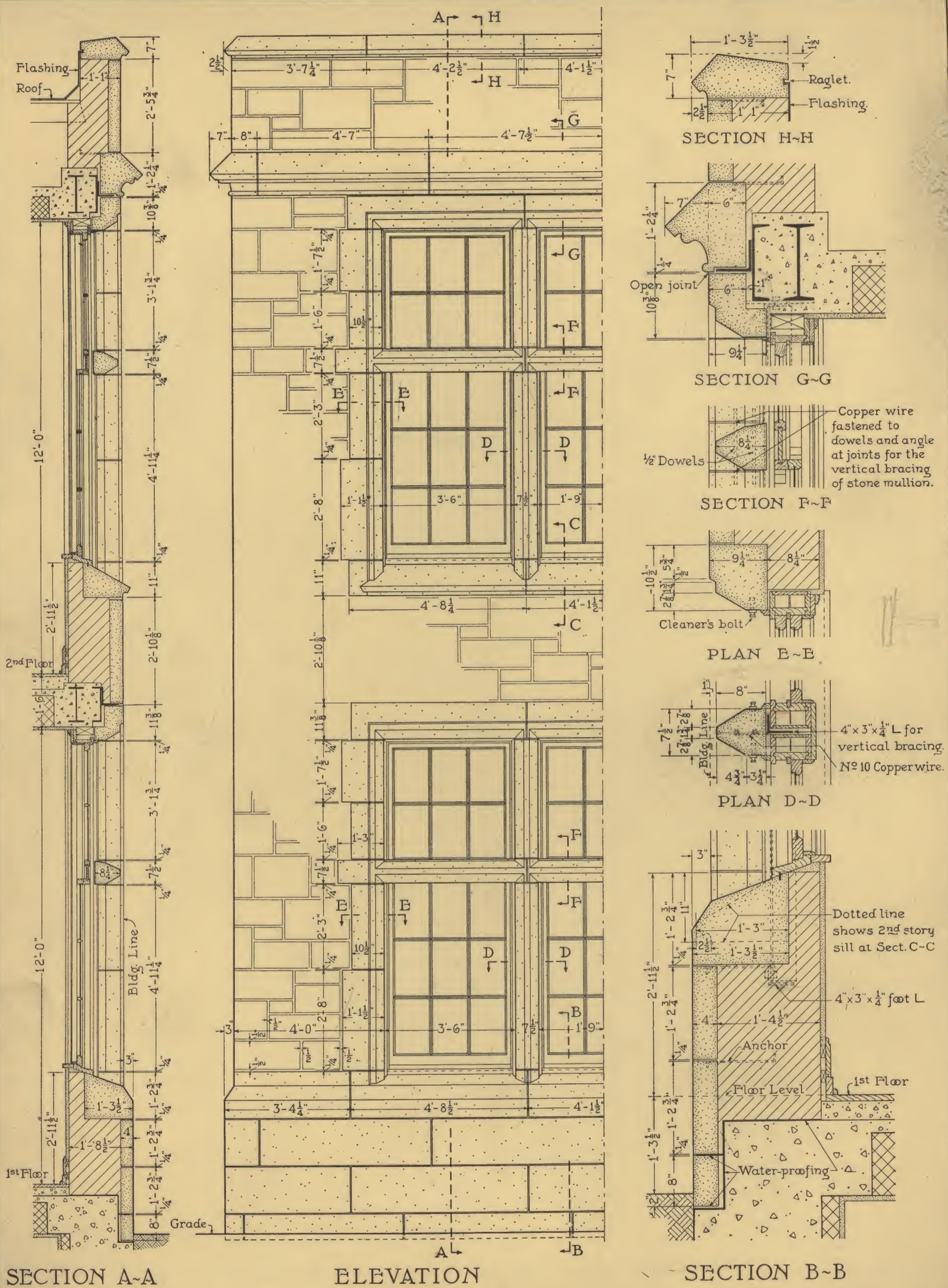
INDIANA LIMESTONE INSTITUTE - - BEDFORD, INDIANA

PREPARED AND COPYRIGHTED BY INDIANA LIMESTONE COMPANY, INC. - - USED AND PUBLISHED BY INDIANA LIMESTONE INSTITUTE BY PERMISSION INDIANA LIMESTONE COMPANY, INC.

LITHOGRAPHED IN U. S. A.



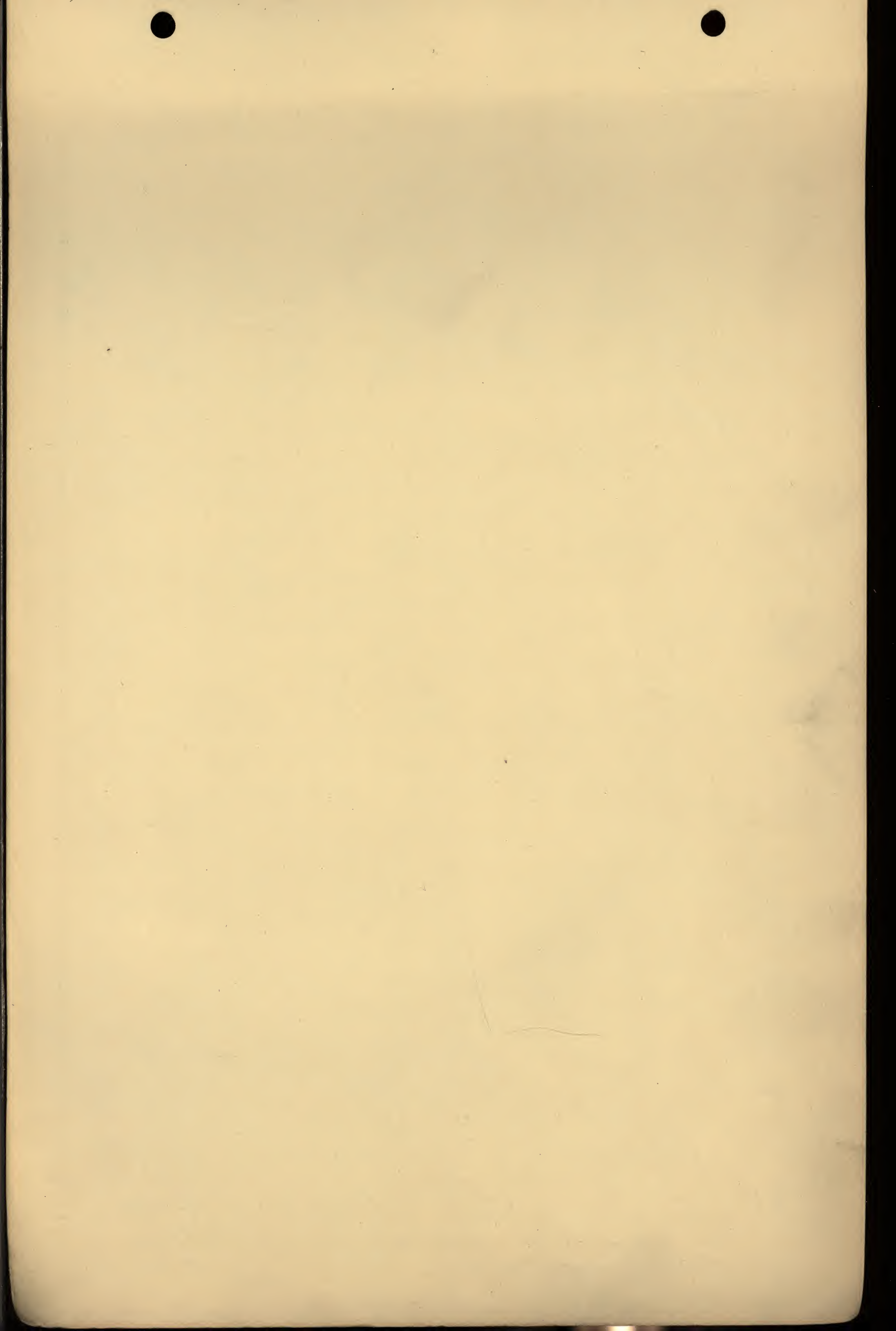
STRUCTURAL DESIGN FOR INDIANA LIMESTONE



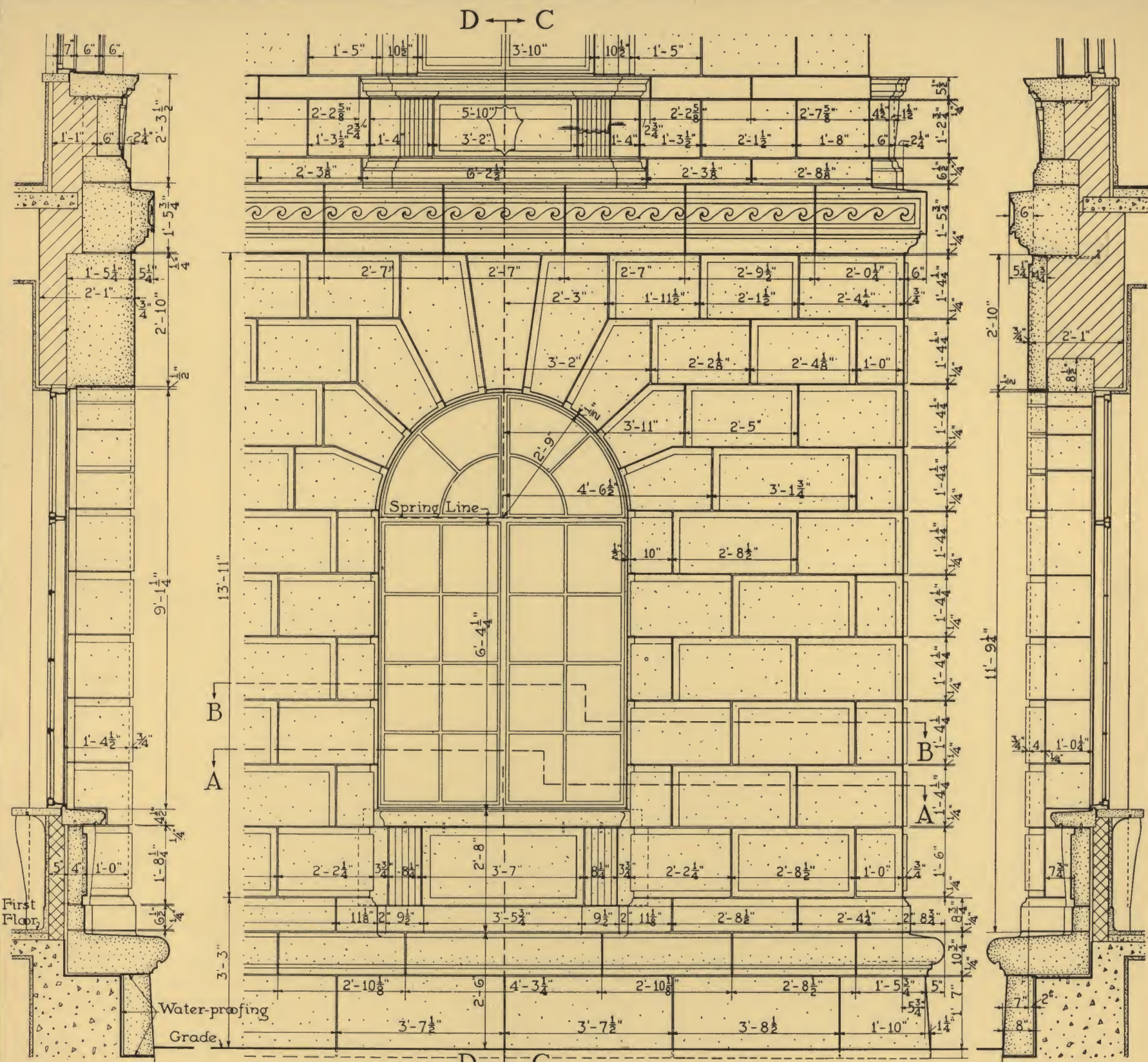
THE NATION'S
BUILDING
STONE

WINDOW TRIM
Grouped Double-hung Windows for
Collegiate Gothic style School Buildings

DRAWING Φ -3
Binder File } 43.1
Classification }



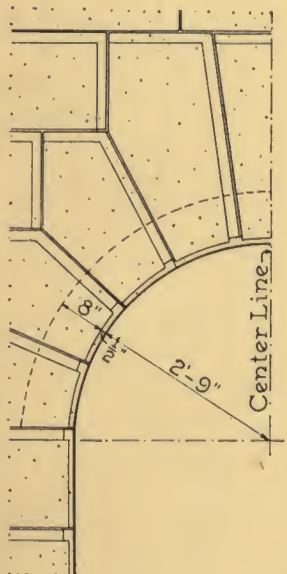
STRUCTURAL DESIGN FOR INDIANA LIMESTONE



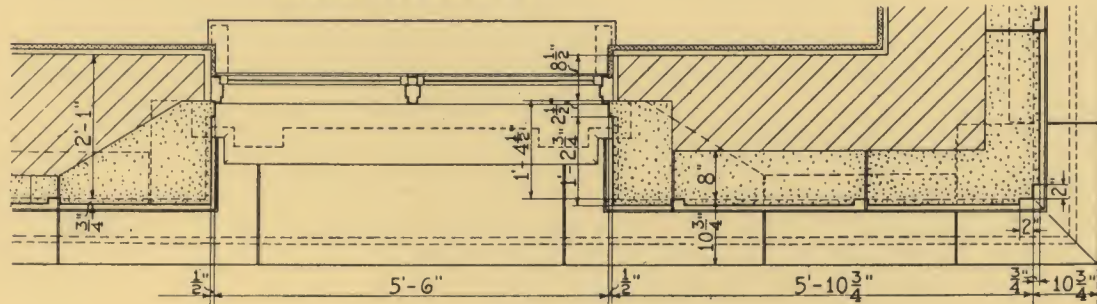
SECTION C~C

ELEVATION

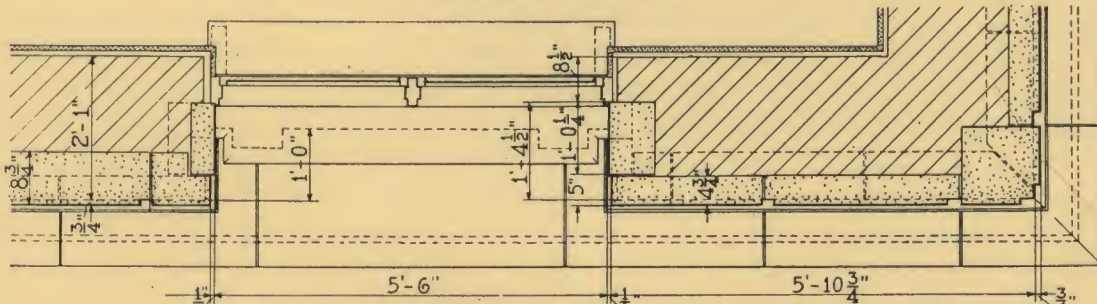
SECTION D-D ALTERNATE CONSTRUCTION



ELEVATION
ALTERNATE
CONSTRUCTION



PLAN A~A



PLAN B-B
ALTERNATE CONSTRUCTION



ELEVATION
ALTERNATE
CONSTRUCTION

PLAN E~E

THE NATION'S BUILDING STONE

RUSTICATED ASHLAR
Channel-groove Rusticated Ashlar, in Renaissance style,
showing two types of construction

DRAWING Φ -5

Binder File } 23.1
Classification }

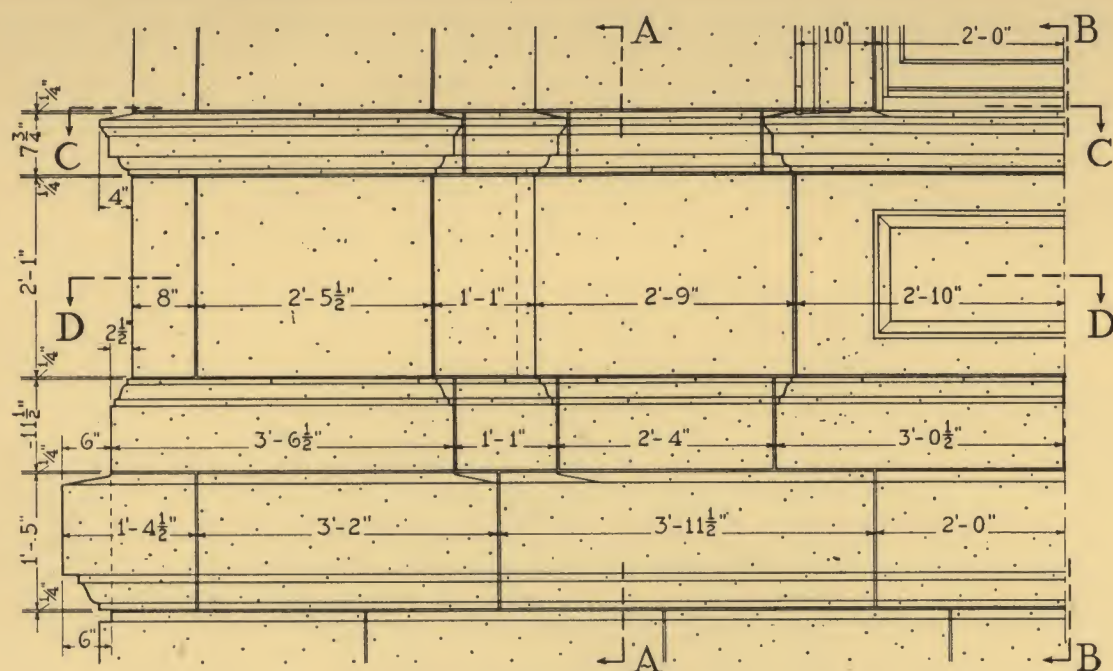
INDIANA LIMESTONE INSTITUTE - - BEDFORD, INDIANA

"PREPARED AND COPYRIGHTED BY INDIANA LIMESTONE COMPANY, INC." . . . "USED AND PUBLISHED BY INDIANA LIMESTONE INSTITUTE BY PERMISSION INDIANA LIMESTONE COMPANY, INC."

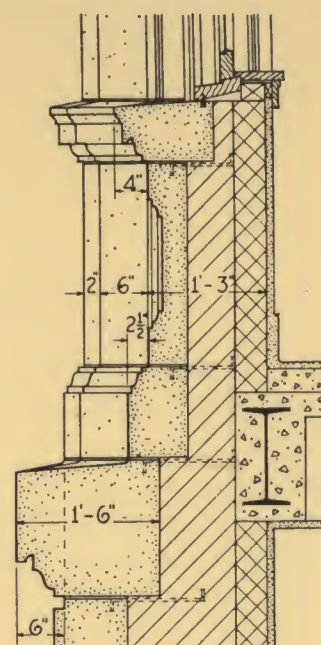
LITHOGRAPHED IN U. S. A.



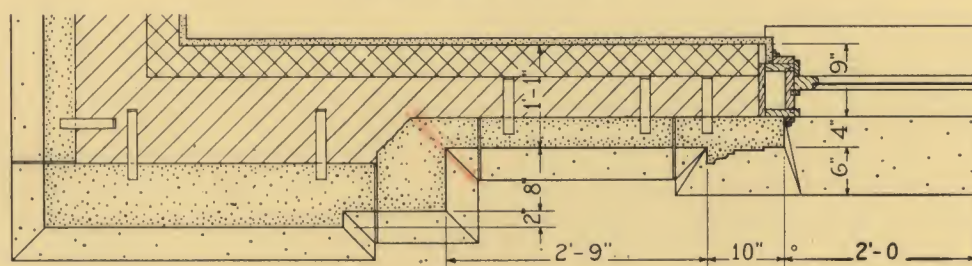
STRUCTURAL DESIGN FOR INDIANA LIMESTONE



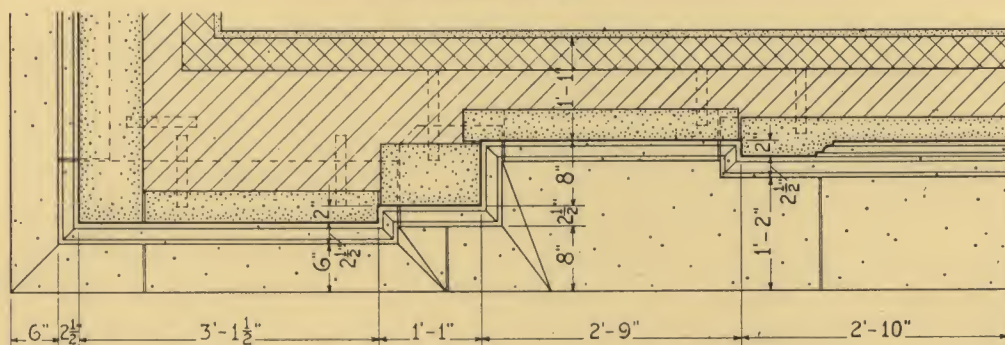
ELEVATION



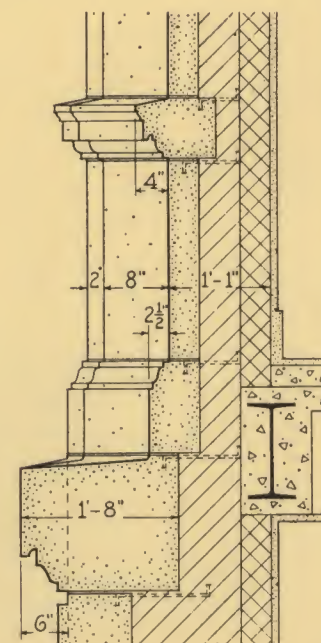
SECTION B-B



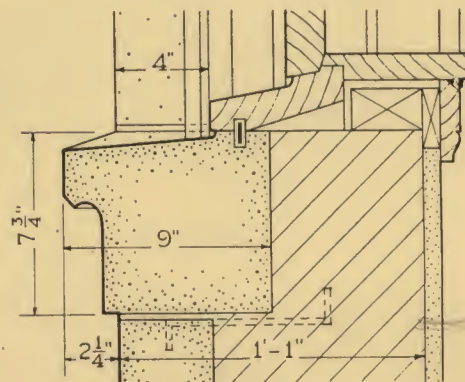
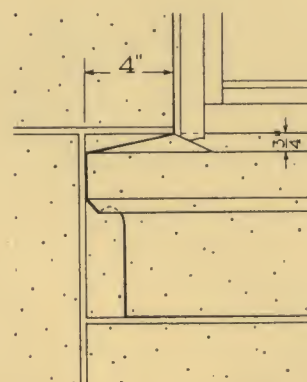
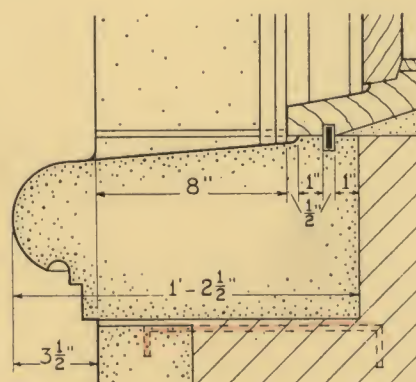
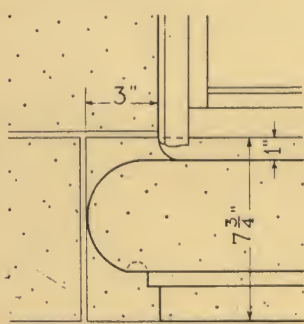
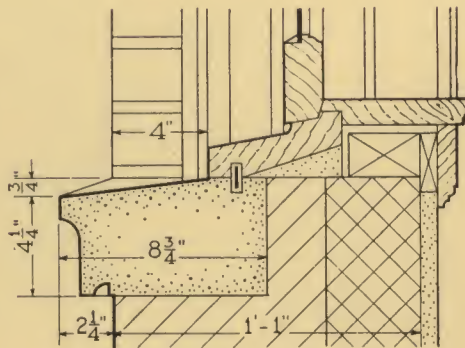
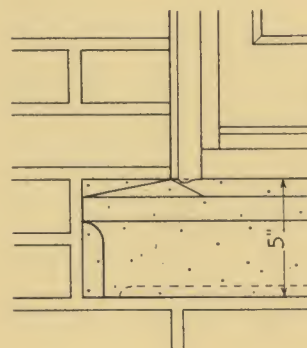
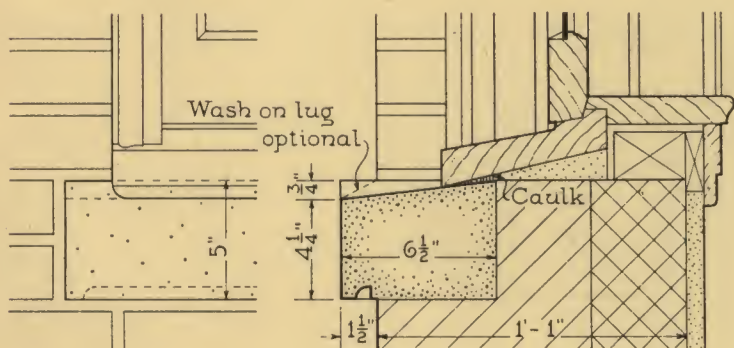
PLAN C-C



PLAN D-D



SECTION A-A



ELEVATIONS & SECTIONS OF ISOLATED WINDOW SILLS.

THE NATION'S
BUILDING
STONE

WINDOW SILLS
Belt Courses and Sills for Wood Frame Windows

DRAWING Φ -7

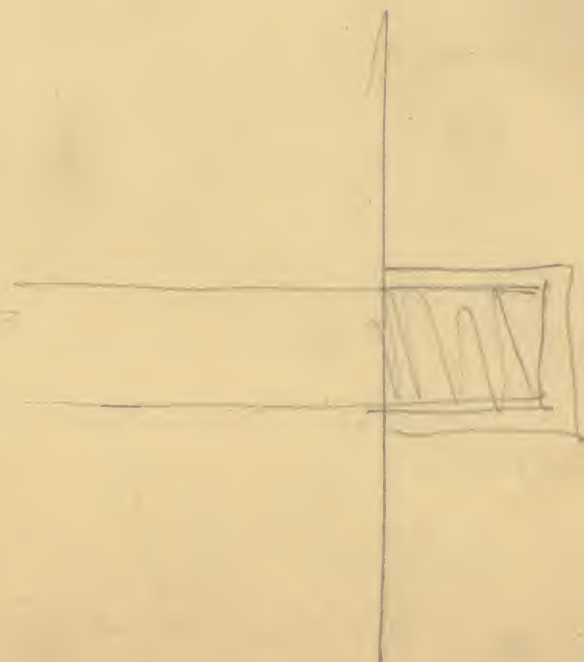
Binder File } 86.1
Classification }

INDIANA LIMESTONE INSTITUTE - - BEDFORD, INDIANA

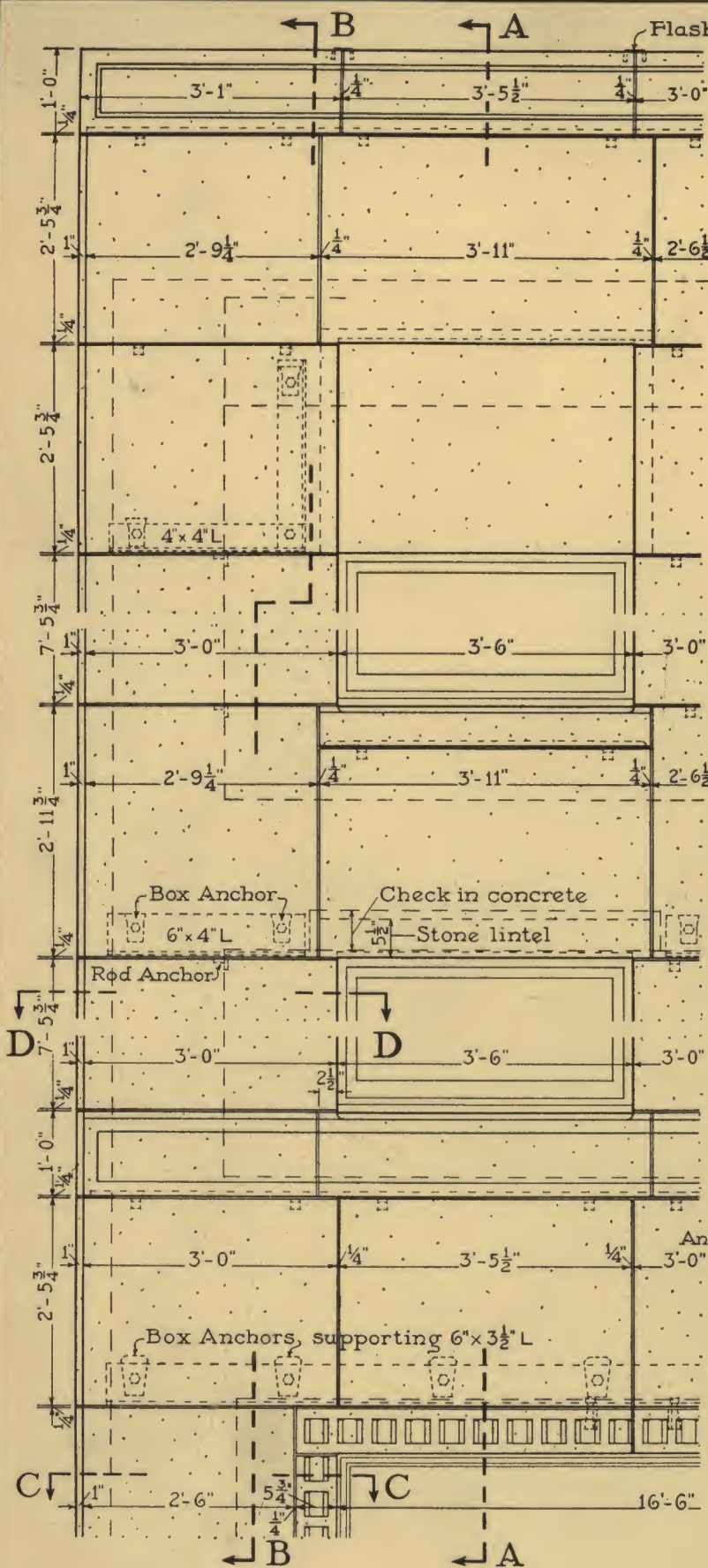
"PREPARED AND COPYRIGHTED BY INDIANA LIMESTONE COMPANY, INC." "USED AND PUBLISHED BY INDIANA LIMESTONE INSTITUTE BY PERMISSION INDIANA LIMESTONE COMPANY, INC."

LITHOGRAPHED IN U.S.A.

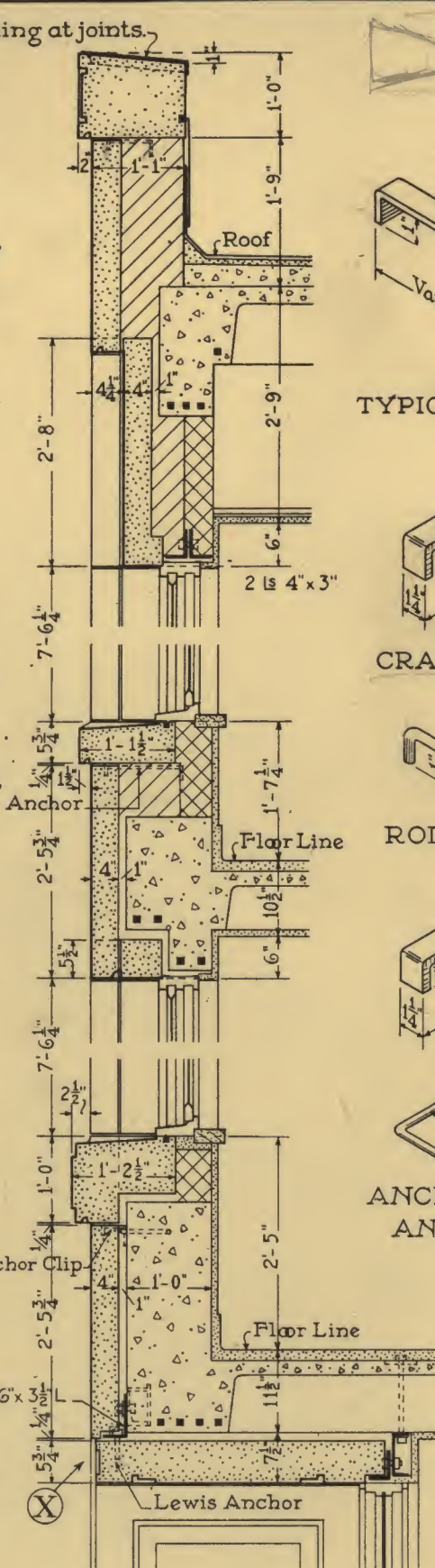
7-3



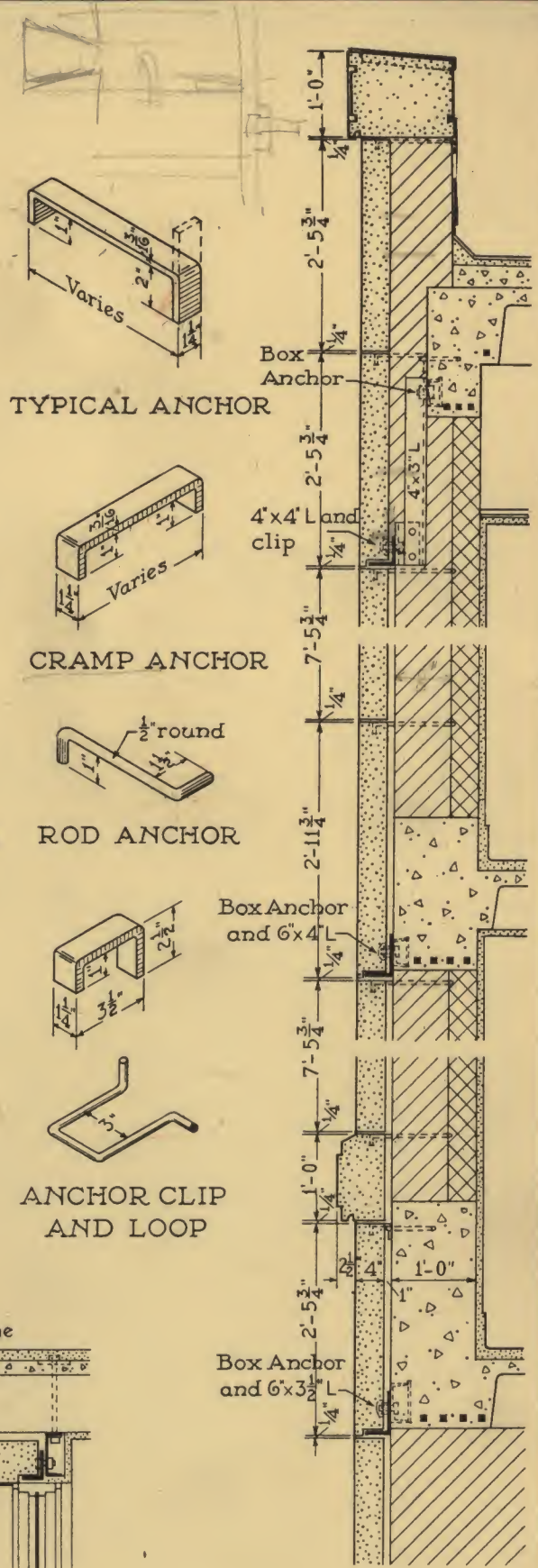
STRUCTURAL DESIGN FOR INDIANA LIMESTONE



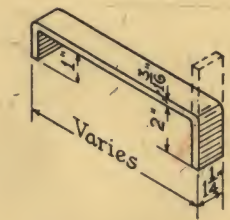
ELEVATION



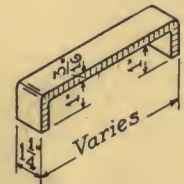
SECTION A-A



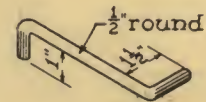
SECTION B-B



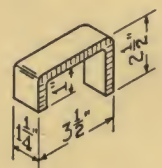
TYPICAL ANCHOR



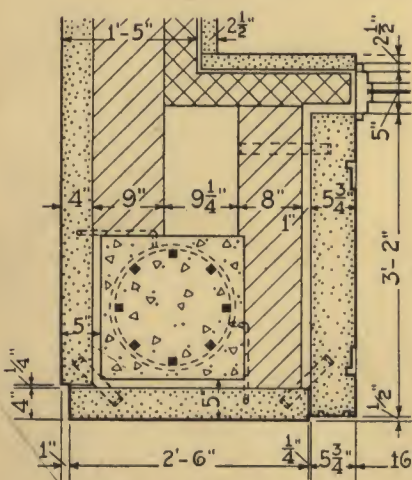
CRAMP ANCHOR



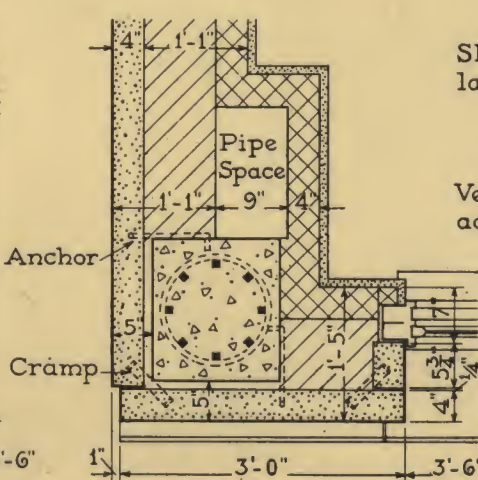
ROD ANCHOR



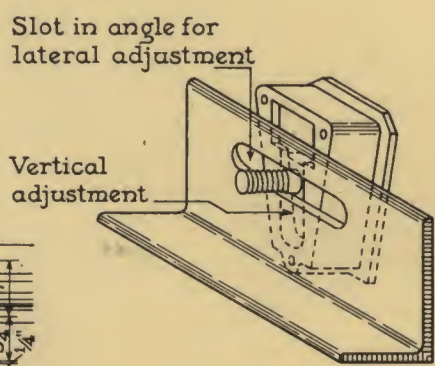
ANCHOR CLIP AND LOOP



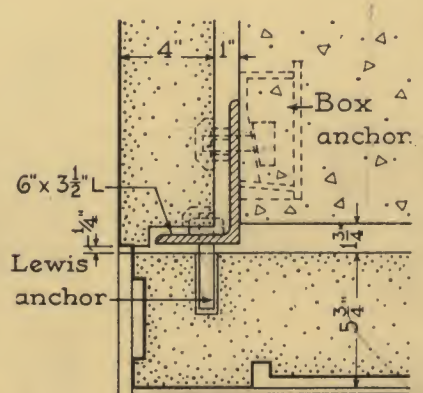
PLAN C-C



PLAN D-D



ISOMETRIC VIEW OF ANGLE & ADJUSTABLE BOX ANCHOR.

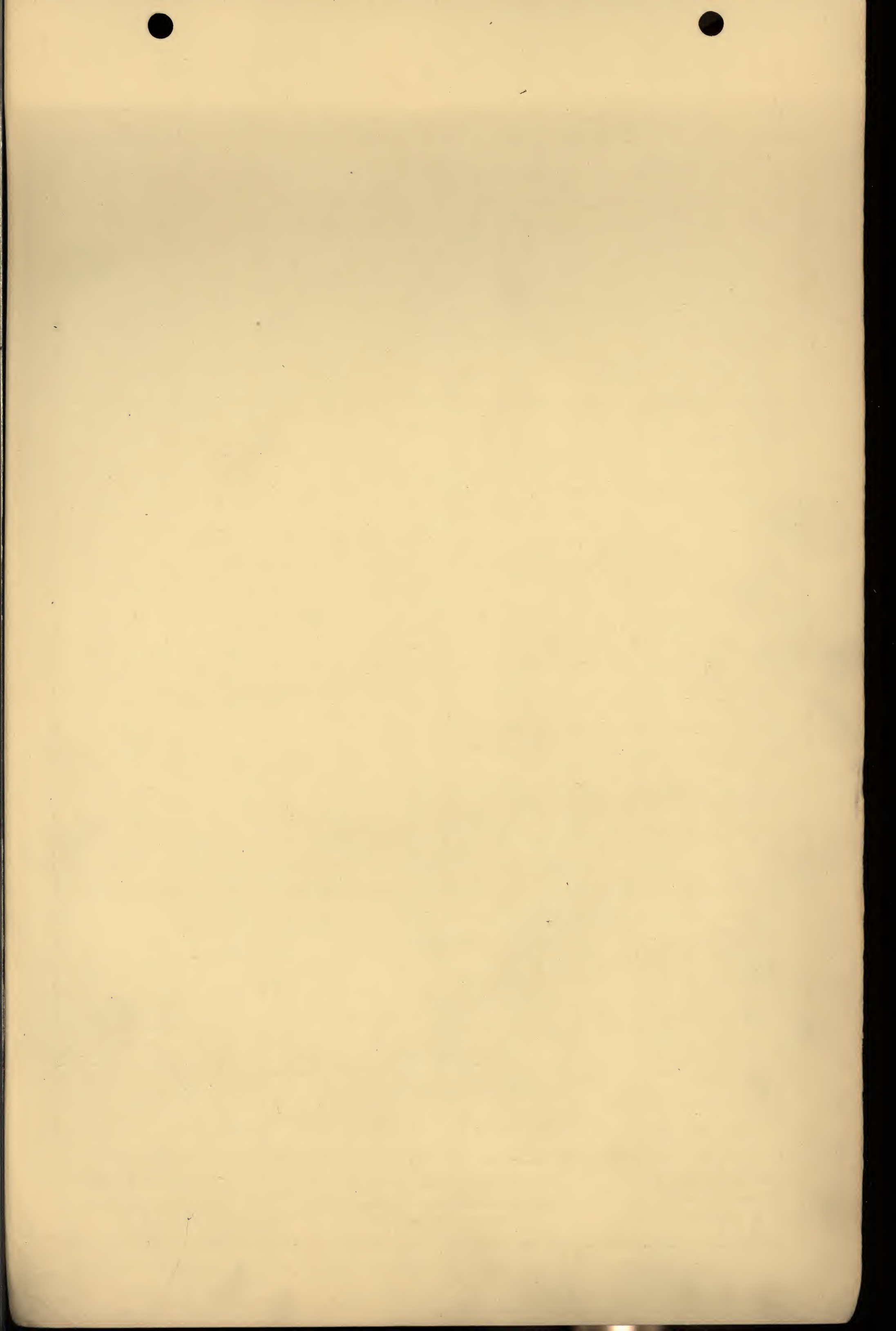


DETAIL AT X

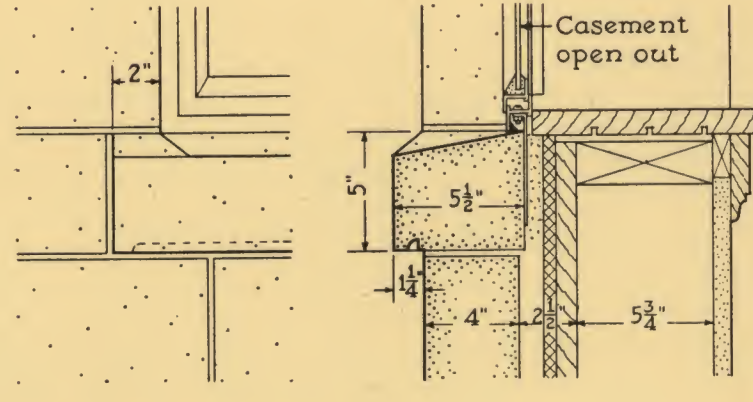
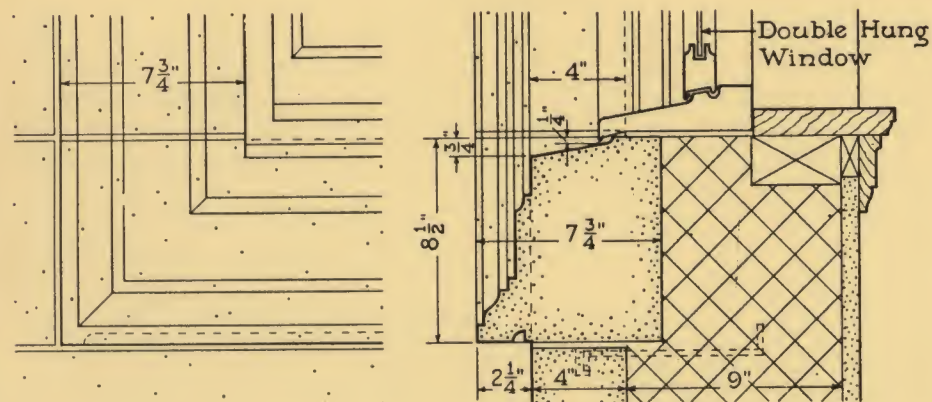
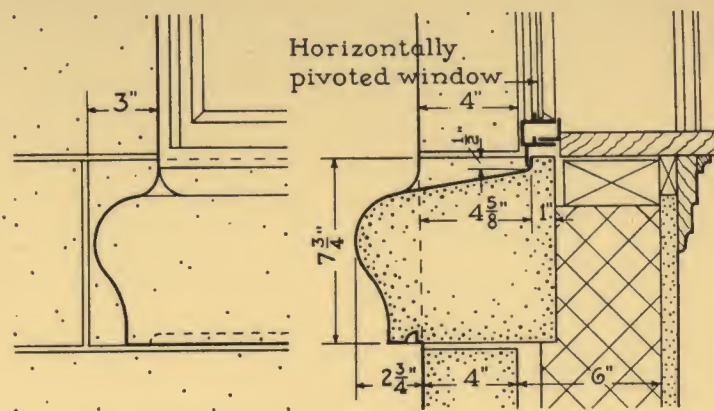
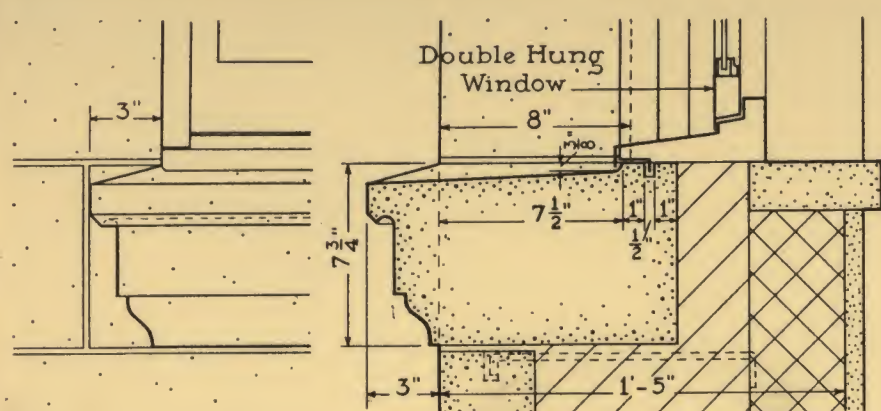
THE NATION'S
BUILDING
STONE

SUPPORTS & ANCHORS
Recommended practice for Reinforced
Concrete Construction

DRAWING Φ -9
Binder File } 82.1
Classification }

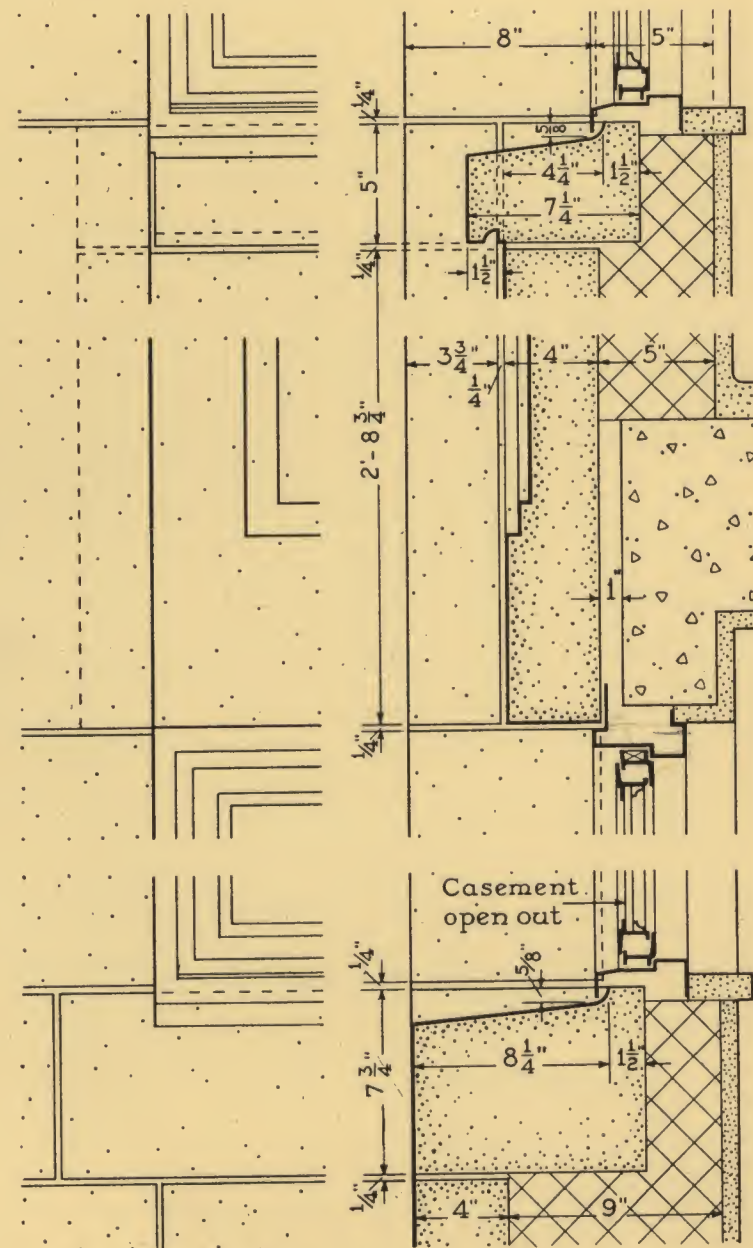
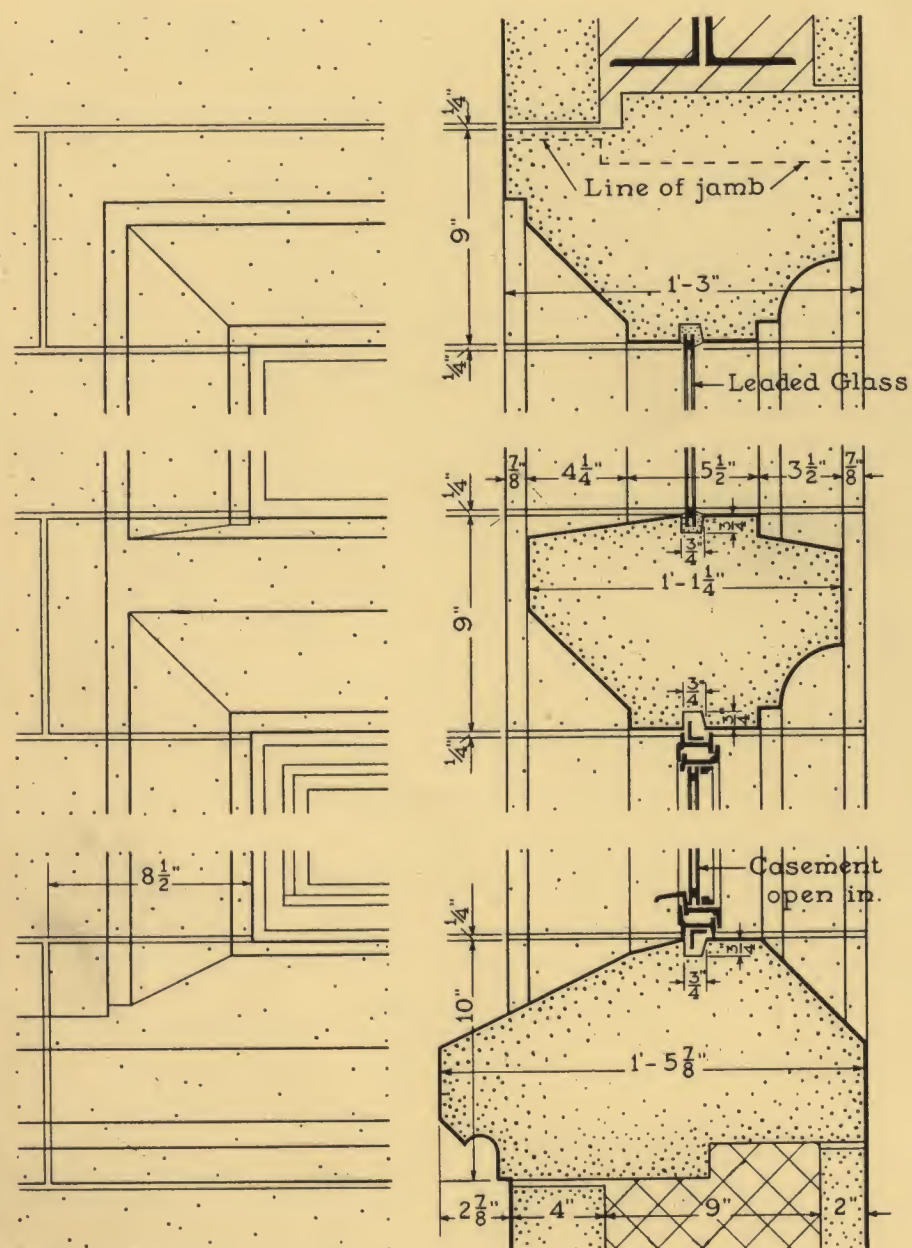


STRUCTURAL DESIGN FOR INDIANA LIMESTONE



ELEVATIONS & SECTIONS OF WINDOW SILLS

Note: Details of sills are governed by the type of steel windows used.



ELEVATION

SECTION

ELEVATION

SECTION

**THE NATION'S
BUILDING
STONE**

WINDOW TRIM
Sills, Jambs and Lintels for Metal Frame
Windows

DRAWING D-10
Binder File } 86.2
Classification }

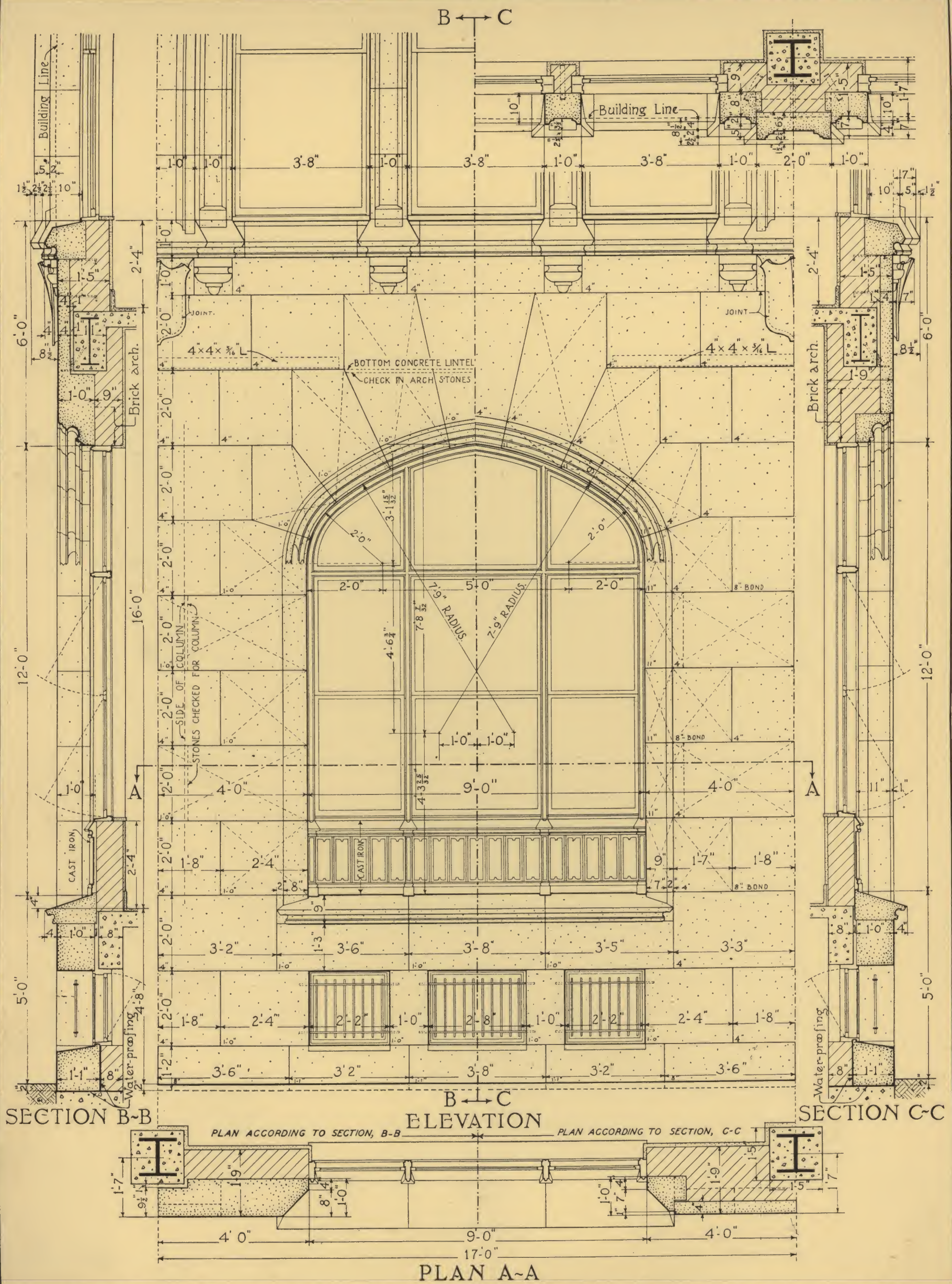
INDIANA LIMESTONE INSTITUTE - - BEDFORD, INDIANA

PREPARED AND COPYRIGHTED BY INDIANA LIMESTONE COMPANY, INC. - - USED AND PUBLISHED BY INDIANA LIMESTONE INSTITUTE BY PERMISSION INDIANA LIMESTONE COMPANY, INC.

LITHOGRAPHED IN U.S.A.



STRUCTURAL DESIGN FOR INDIANA LIMESTONE



THE NATION'S BUILDING STONE

JAMBS & ARCHES

Showing two types of Construction

DRAWING Φ -11

Binder File } 85.1
Classification }

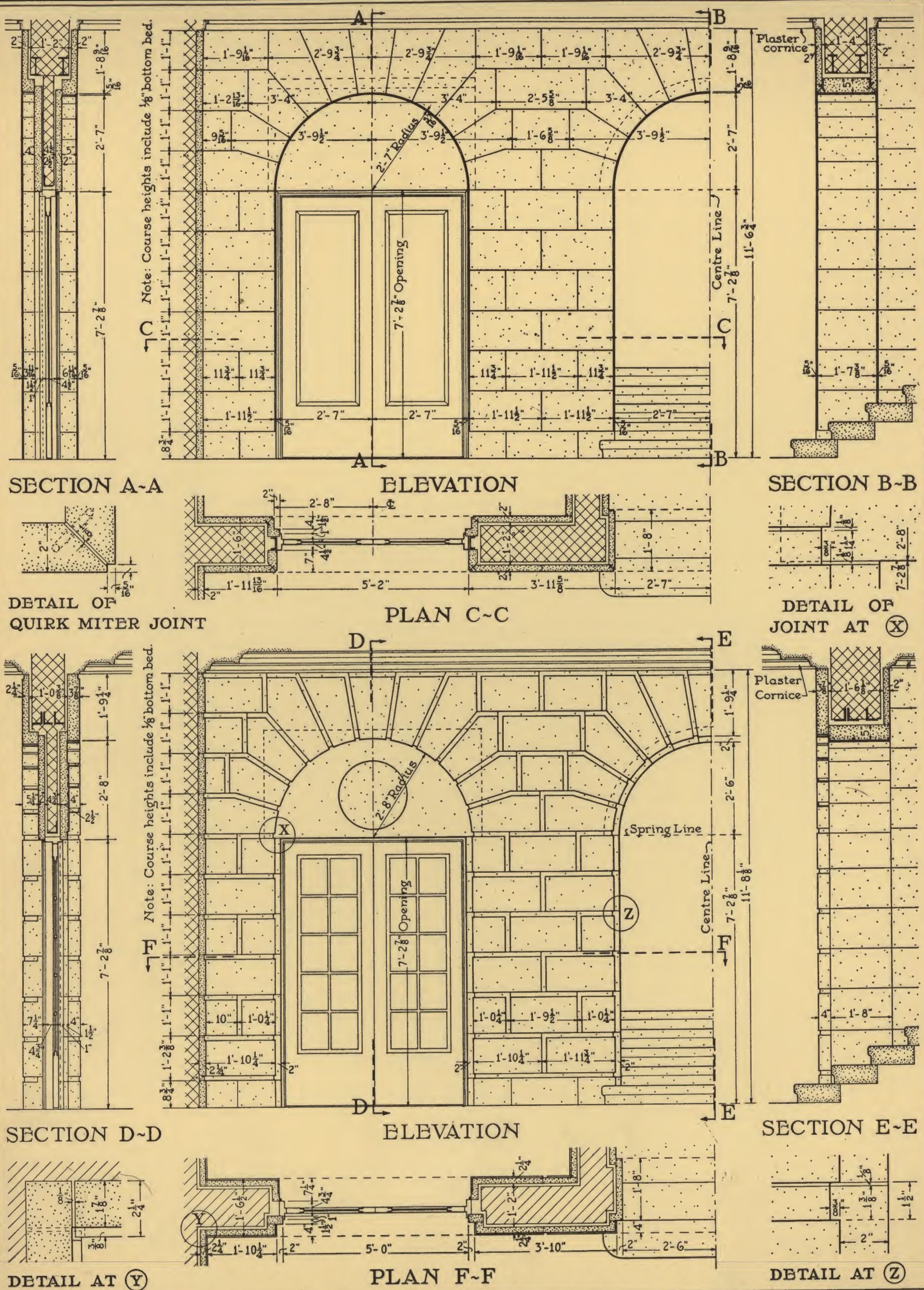
INDIANA LIMESTONE INSTITUTE - - BEDFORD, INDIANA

"PREPARED AND COPYRIGHTED BY INDIANA LIMESTONE COMPANY, INC." - - - "USED AND PUBLISHED BY INDIANA LIMESTONE INSTITUTE BY PERMISSION INDIANA LIMESTONE COMPANY, INC."

LITHOGRAPHED IN U. S. A.



STRUCTURAL DESIGN FOR INDIANA LIMESTONE



THE NATION'S BUILDING STONE

INTERIORS

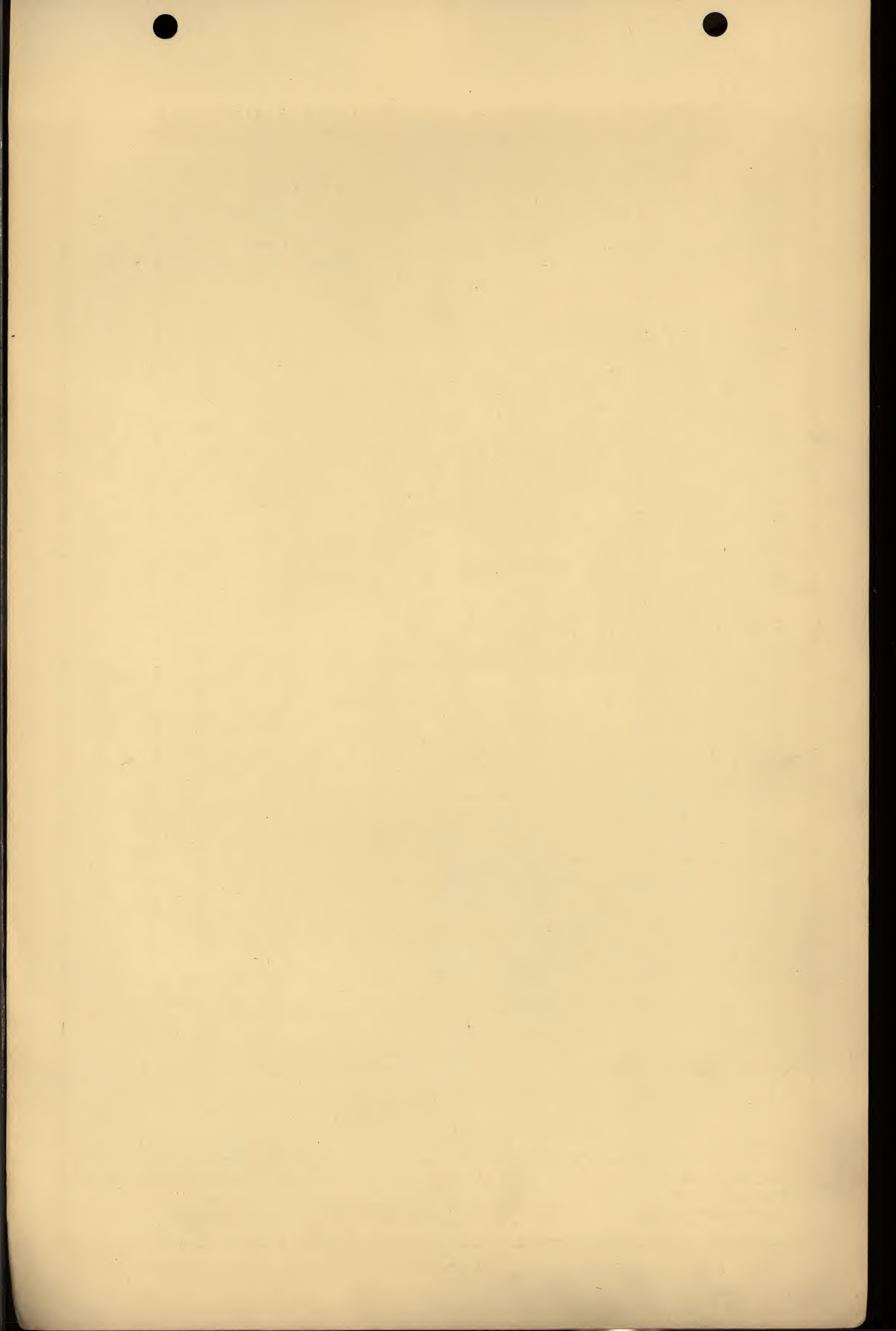
Interior facing showing Plain and Rusticated Treatment

DRAWING Φ -13

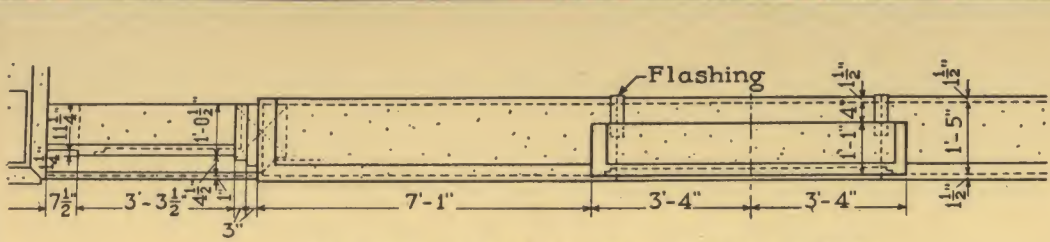
Binder File } 91.1
Classification }

INDIANA LIMESTONE INSTITUTE - - BEDFORD, INDIANA

LITHOGRAPHED IN U. S. A.

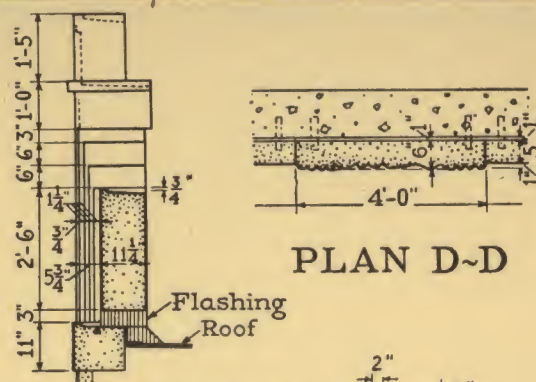


STRUCTURAL DESIGN FOR INDIANA LIMESTONE

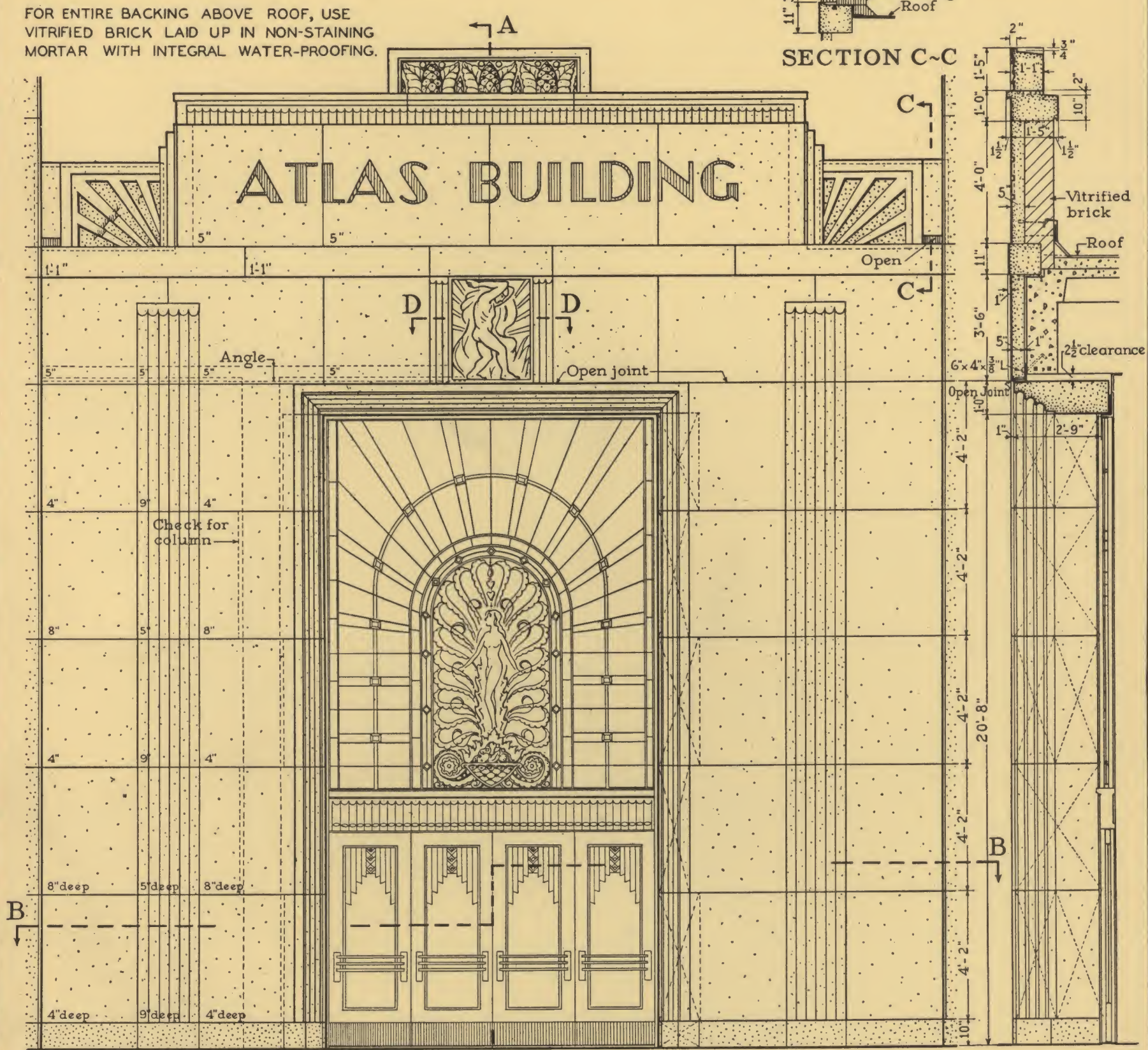


PART PLAN OF PARAPET

FOR ENTIRE BACKING ABOVE ROOF, USE
VITRIFIED BRICK LAID UP IN NON-STAINING
MORTAR WITH INTEGRAL WATER-PROOFING.

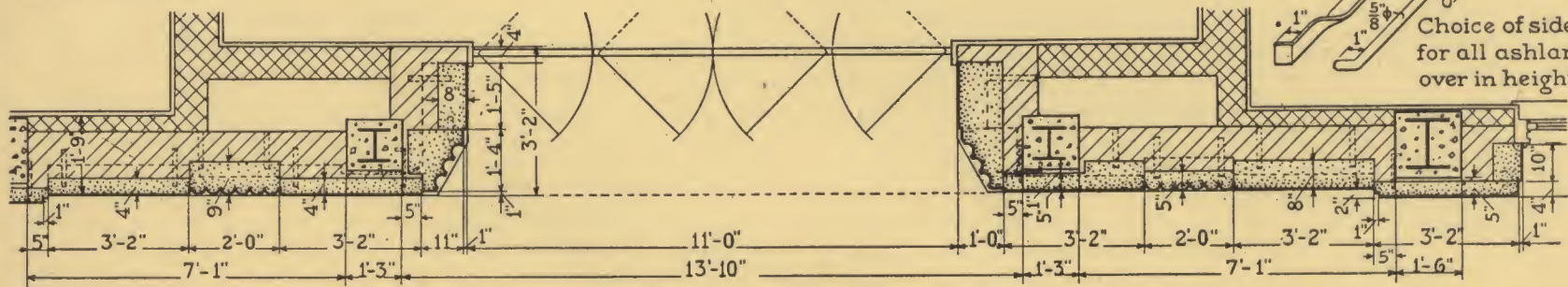


PLAN D~D



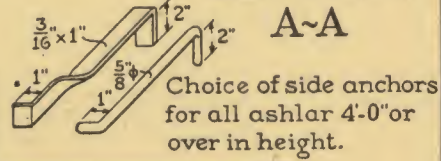
SIDE ANCHORS 8" ABOVE BOTTOM BED
REQUIRED FOR ALL ASHLAR 4'-0" OR
OVER IN HEIGHT.

ELEVATION



PLAN B~B

SECTION
A-A



Choice of side anchors
for all ashlar 4'-0" or
over in height.

THE NATION'S BUILDING STONE

ENTRANCE

Recommended construction for
Entrance of Modern Office Building.

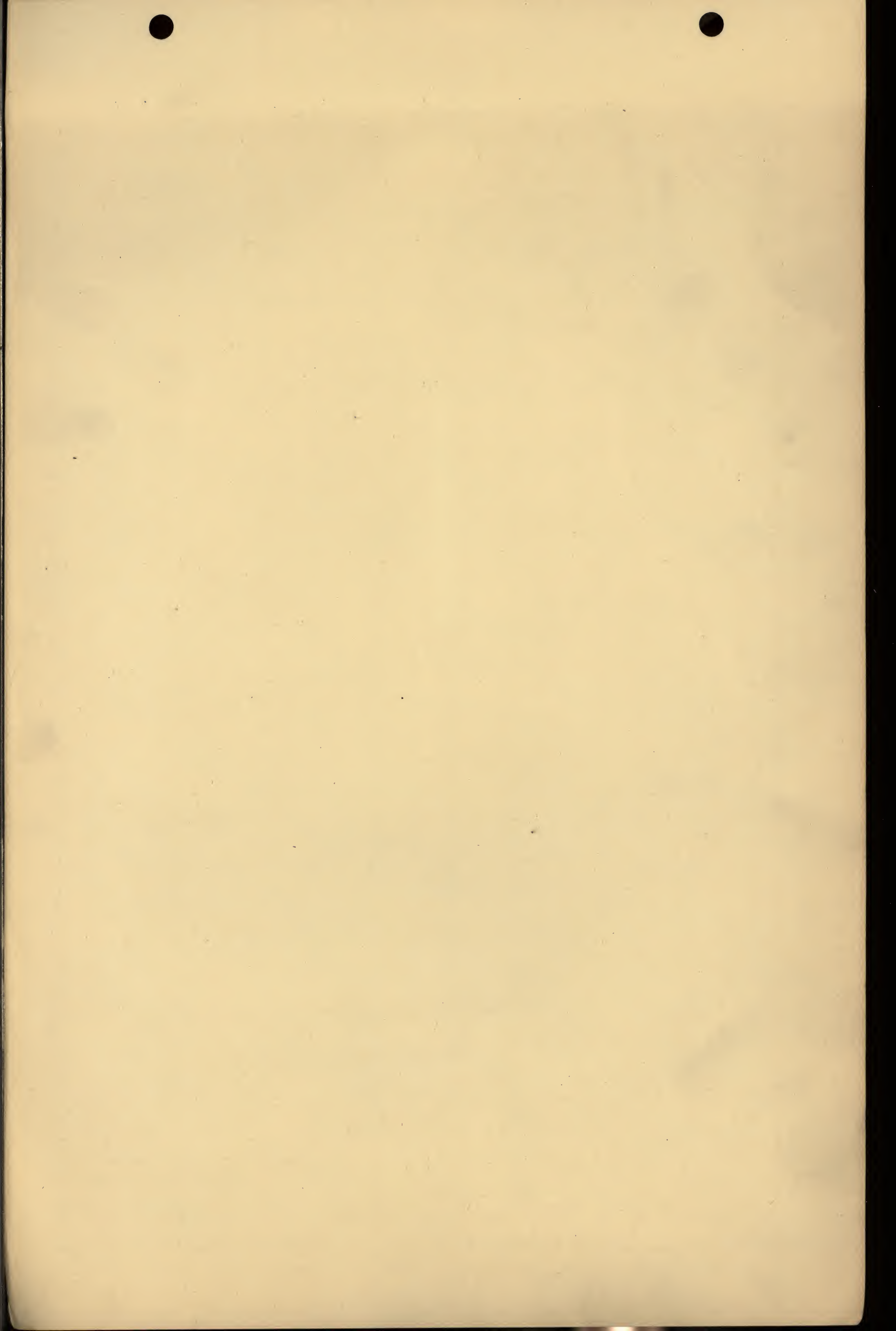
DRAWING Φ -14

Binder File } 51.2
Classification }

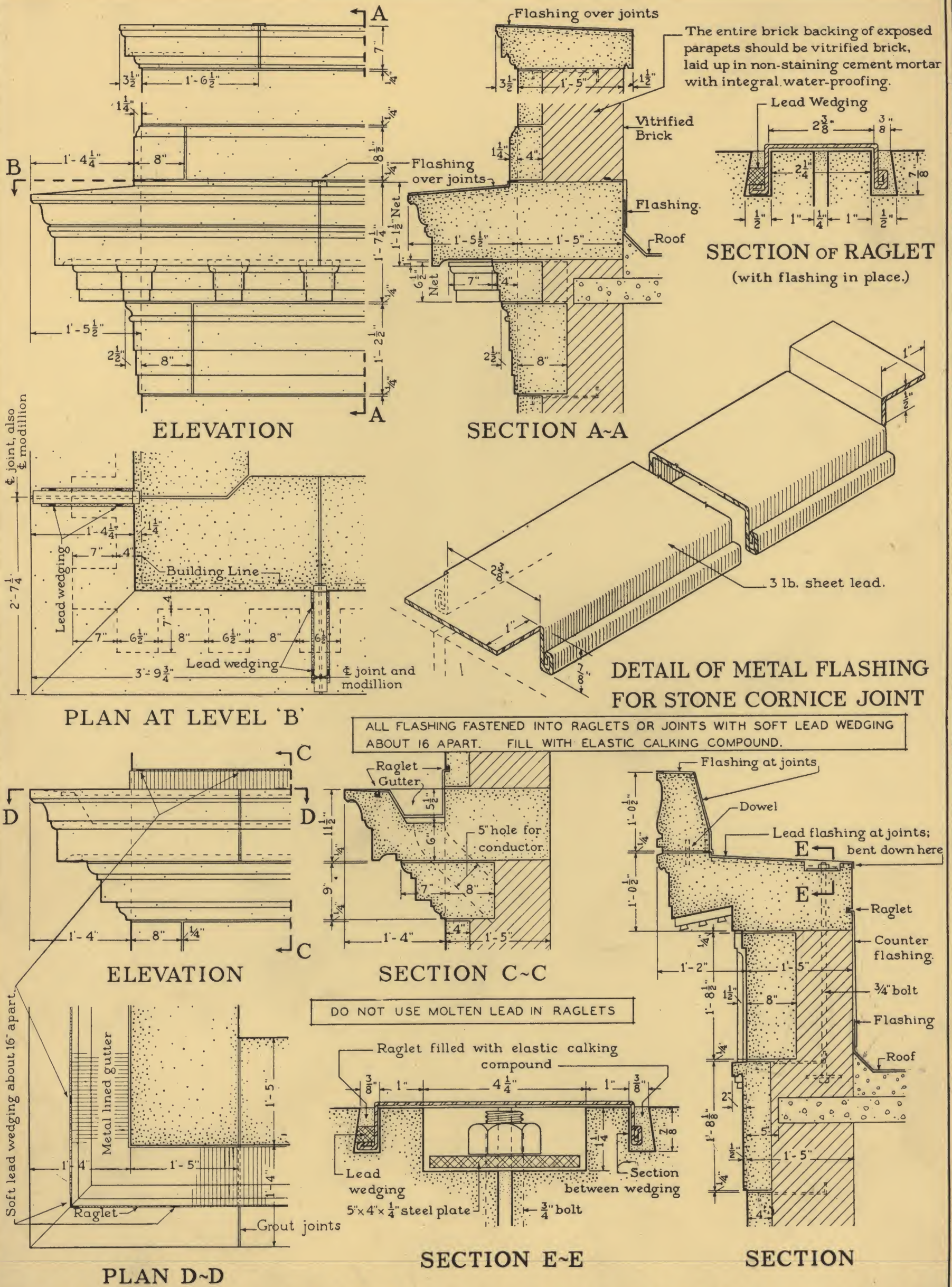
INDIANA LIMESTONE INSTITUTE - - BEDFORD, INDIANA

"PREPARED AND COPYRIGHTED BY INDIANA LIMESTONE COMPANY, INC." - - - "USED AND PUBLISHED BY INDIANA LIMESTONE INSTITUTE BY PERMISSION INDIANA LIMESTONE COMPANY, INC."

LITHOGRAPHED IN U. S. A.



STRUCTURAL DESIGN FOR INDIANA LIMESTONE



THE NATION'S BUILDING STONE

FLASHING

Cornices, Gutters and Copings

DRAWING Φ -15

Binder File } 81.2
Classification }

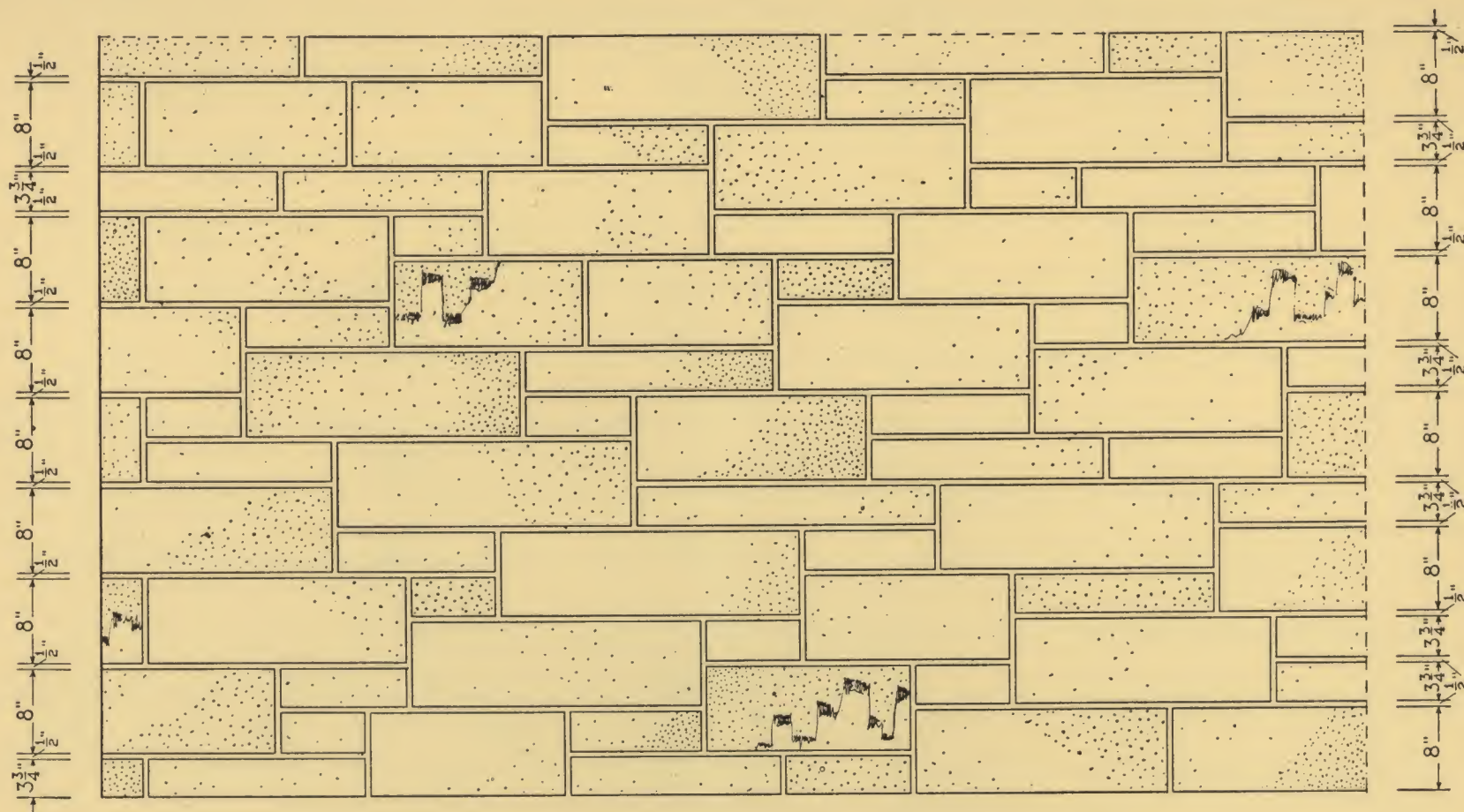
INDIANA LIMESTONE INSTITUTE - - BEDFORD, INDIANA

"PREPARED AND COPYRIGHTED BY INDIANA LIMESTONE COMPANY, INC." . . . "USED AND PUBLISHED BY INDIANA LIMESTONE INSTITUTE BY PERMISSION INDIANA LIMESTONE COMPANY, INC."

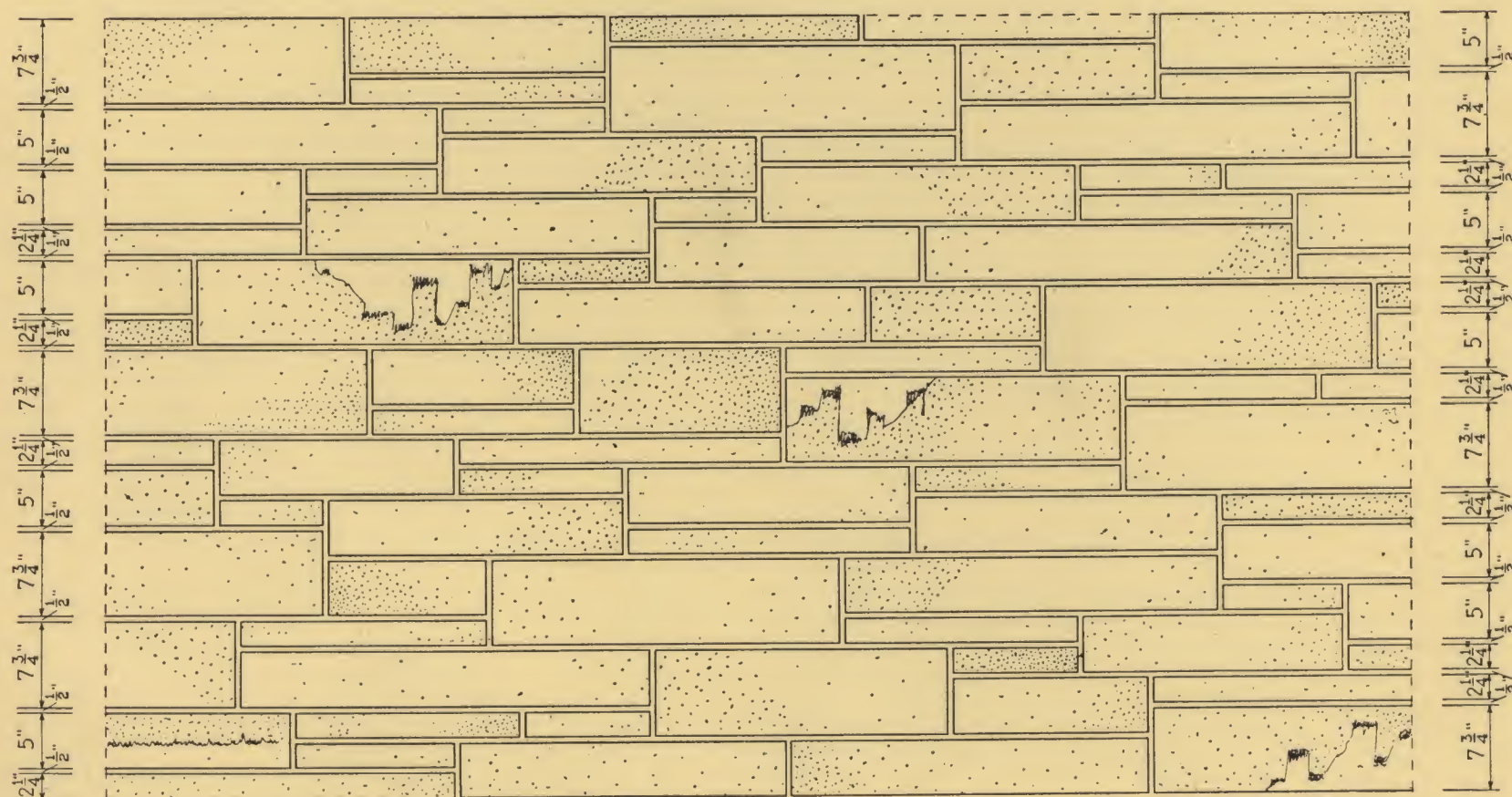
LITHOGRAPHED IN U. S. A.



STRUCTURAL DESIGN FOR INDIANA LIMESTONE



Two unit, medium type random ashlar, illustrated in special ILCO wall panel No.11. The lengths of the larger stones average about three times their height. Joints are one half inch.



Three unit, long type random ashlar, similar except vertical joints to special ILCO wall panel No.7. Lengths of most stones average at least four times their heights. Joints are one half inch.

Furnished in strips; jointed to length at building site.

**THE NATION'S
BUILDING
STONE**

RANDOM ASHLAR

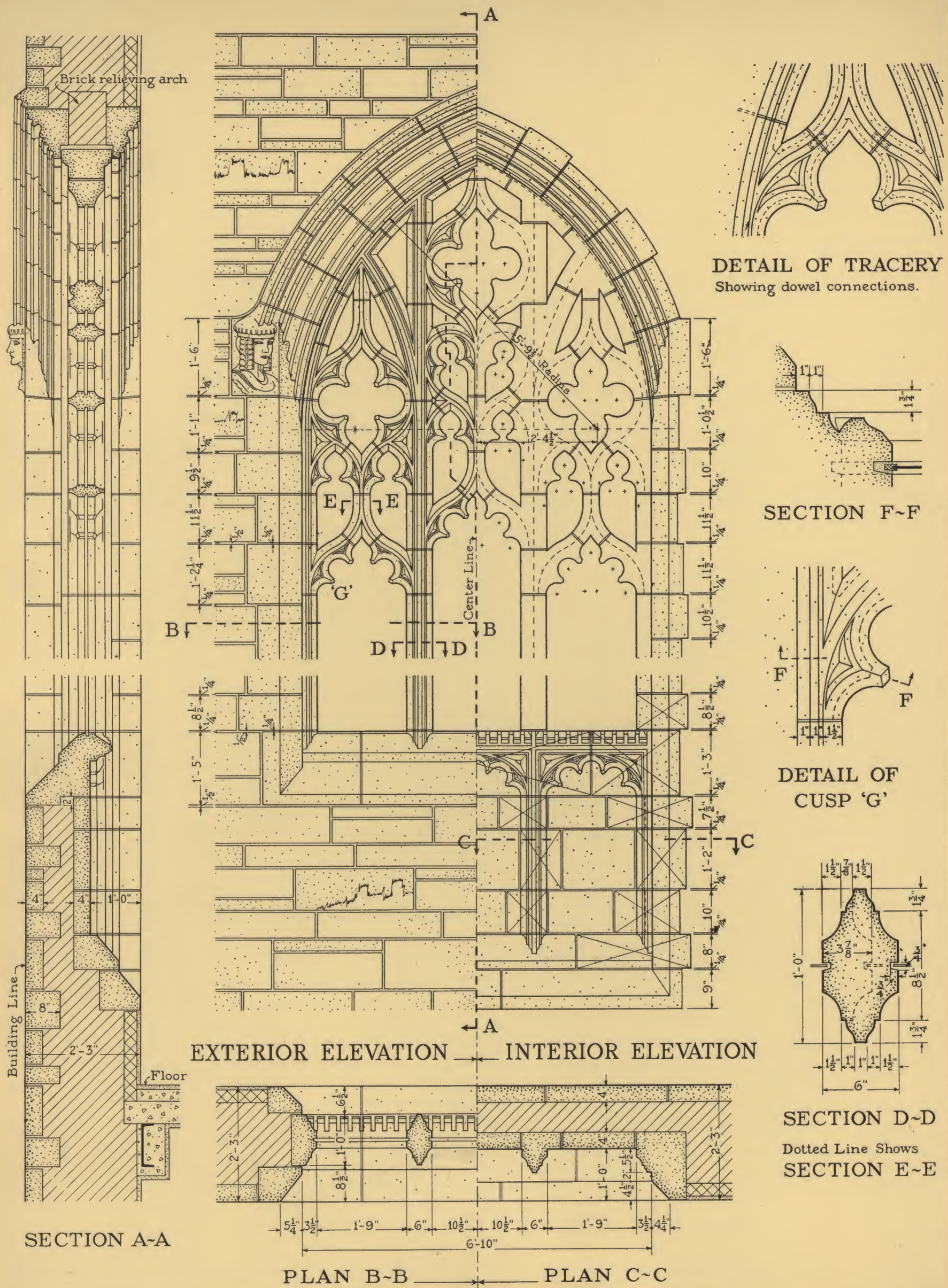
Two unit, medium type and three unit, long type
jointing details for walls of ILCO RIPLSTONE.

DRAWING Φ -16

Binder File } 85.3
Classification }



STRUCTURAL DESIGN FOR INDIANA LIMESTONE



THE NATION'S BUILDING STONE

TRACERY WINDOW

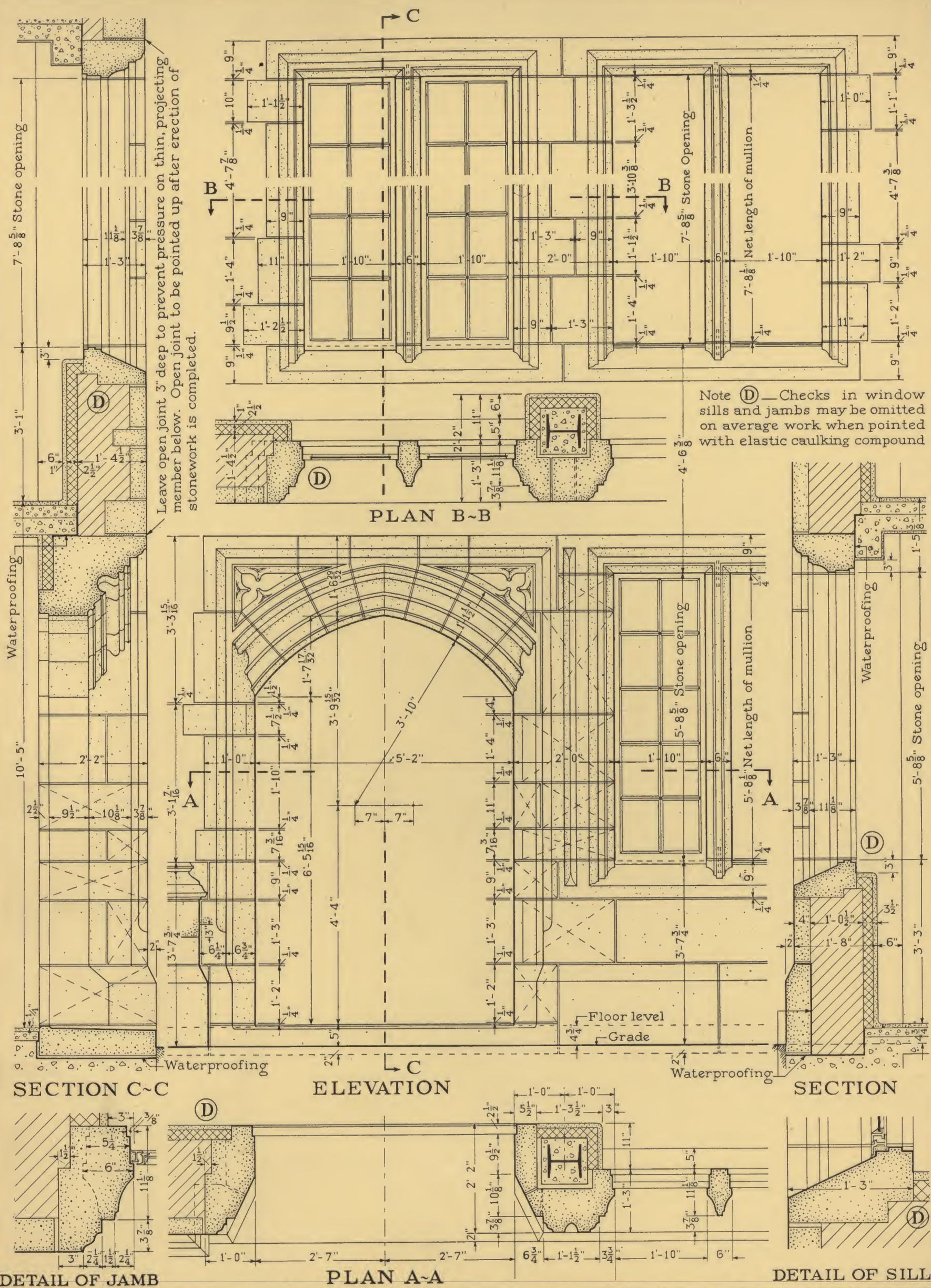
Gothic Tracery Window showing Exterior
and Interior Treatment.

DRAWING Φ -25

Binder File } 44.1
Classification }



STRUCTURAL DESIGN FOR INDIANA LIMESTONE



THE NATION'S BUILDING STONE

ENTRANCE AND WINDOWS

Construction for Collegiate
Gothic Building.

DRAWING Φ -26

Binder File } 43.2
Classification }

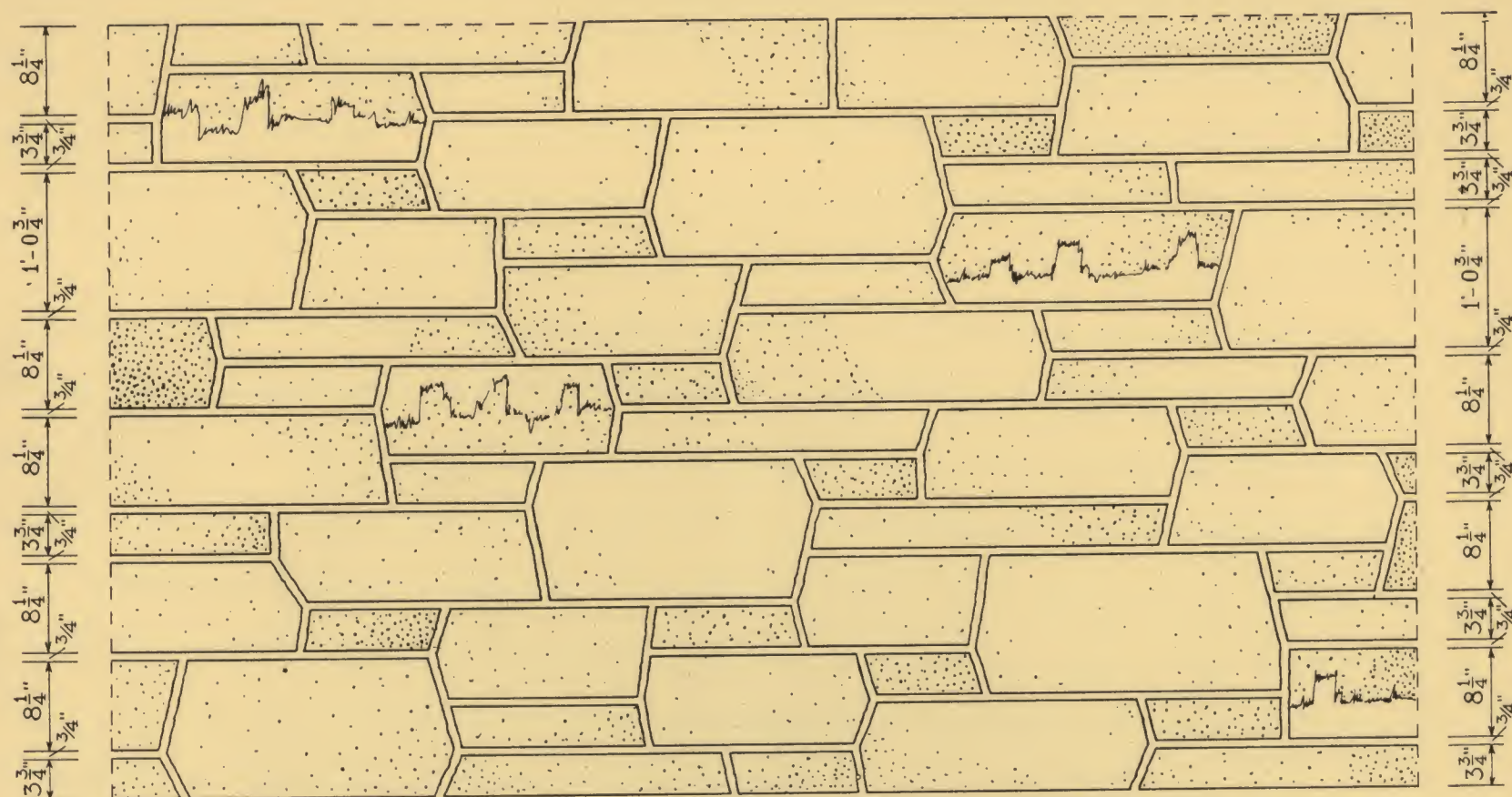
INDIANA LIMESTONE INSTITUTE - - BEDFORD, INDIANA

"PREPARED AND COPYRIGHTED BY INDIANA LIMESTONE COMPANY, INC." - - - "USED AND PUBLISHED BY INDIANA LIMESTONE INSTITUTE BY PERMISSION INDIANA LIMESTONE COMPANY, INC."

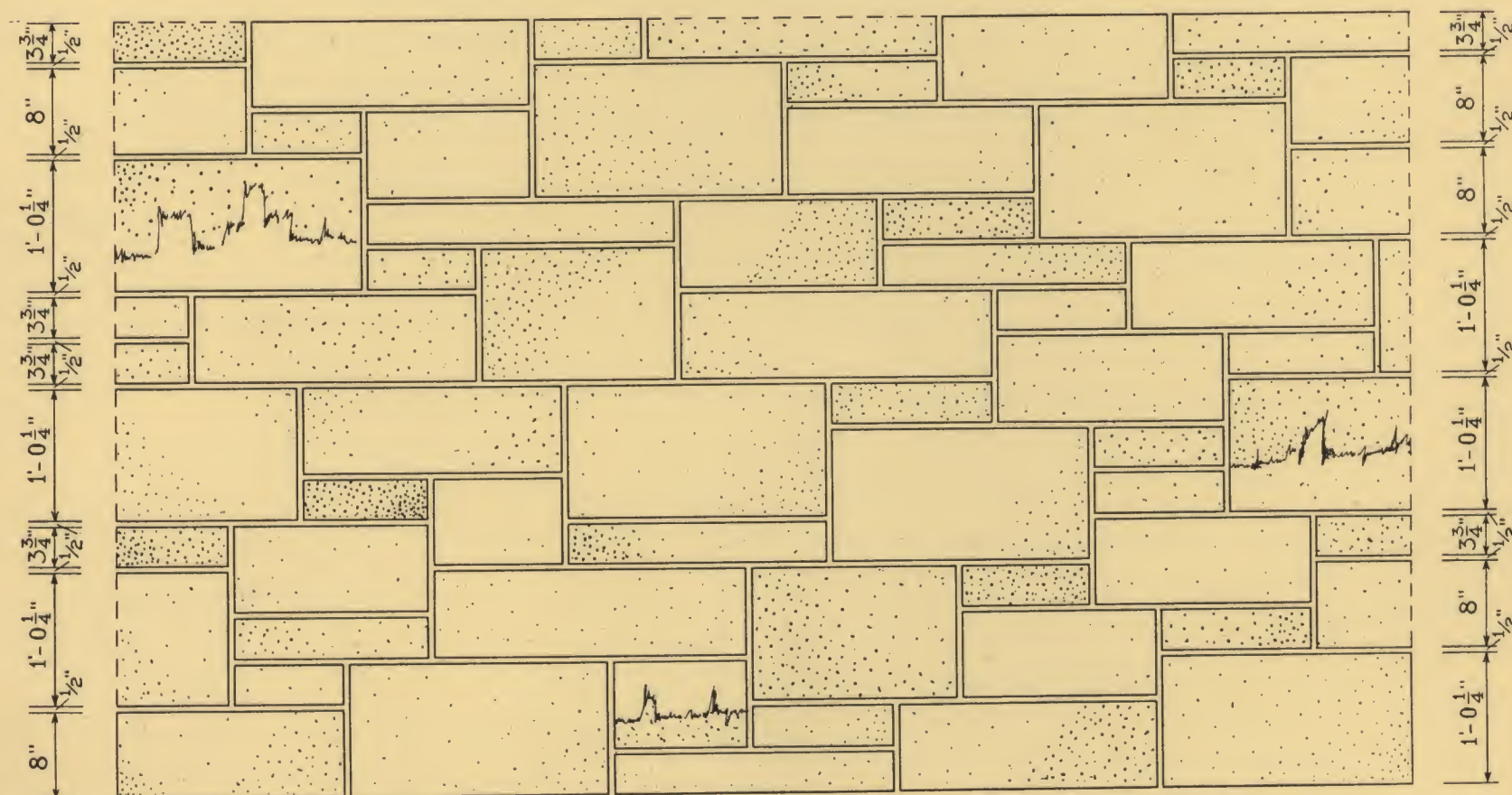
LITHOGRAPHED IN U. S. A.



STRUCTURAL DESIGN FOR INDIANA LIMESTONE



Angular broken end, three unit random ashlar, similar to special ILCO wall panel No.10. Lengths of the larger stones average about twice their heights. Joints are three fourths of an inch.



Three unit, medium type random ashlar, similar to special ILCO wall panel No.15. Lengths of larger stones average about twice their heights. Joints are one half inch.

Furnished in strips; jointed to length at building site.

**THE NATION'S
BUILDING
STONE**

RANDOM ASHLAR

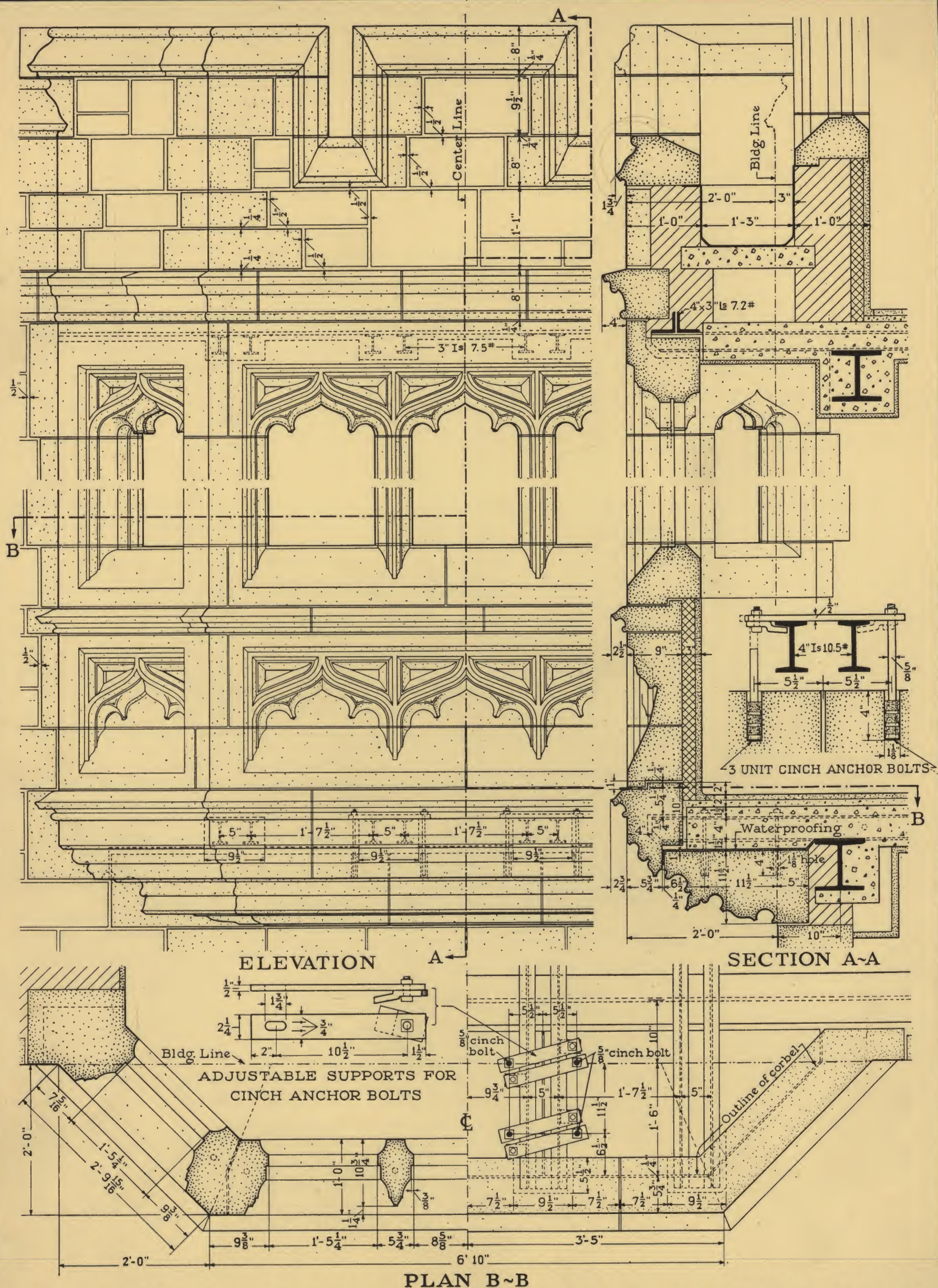
Three unit, medium type jointing details, in plain and special treatment for walls of ILCO RIPLSTONE

DRAWING Φ -27

Binder File } 85.4
Classification }



STRUCTURAL DESIGN FOR INDIANA LIMESTONE



THE NATION'S
BUILDING
STONE

CORBELED BAY
Construction for Support of
Corbeled Bay Window.

DRAWING Φ -28
Binder File
Classification } 43.3

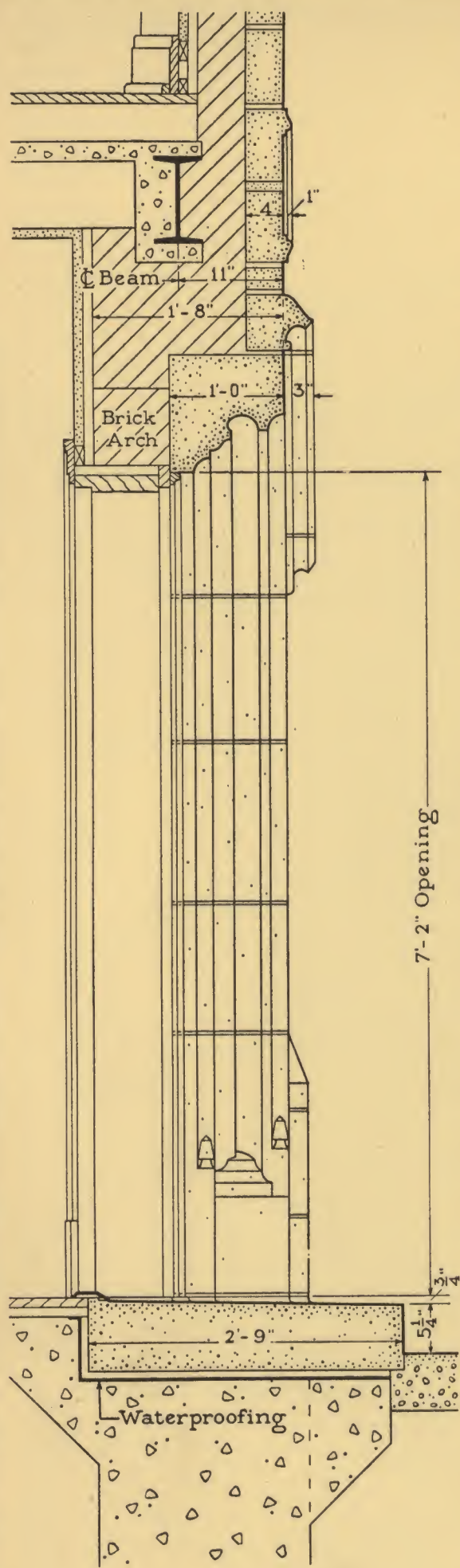
INDIANA LIMESTONE INSTITUTE - - BEDFORD, INDIANA

PREPARED AND COPYRIGHTED BY INDIANA LIMESTONE COMPANY, INC. - - USED AND PUBLISHED BY INDIANA LIMESTONE INSTITUTE BY PERMISSION INDIANA LIMESTONE COMPANY, INC.

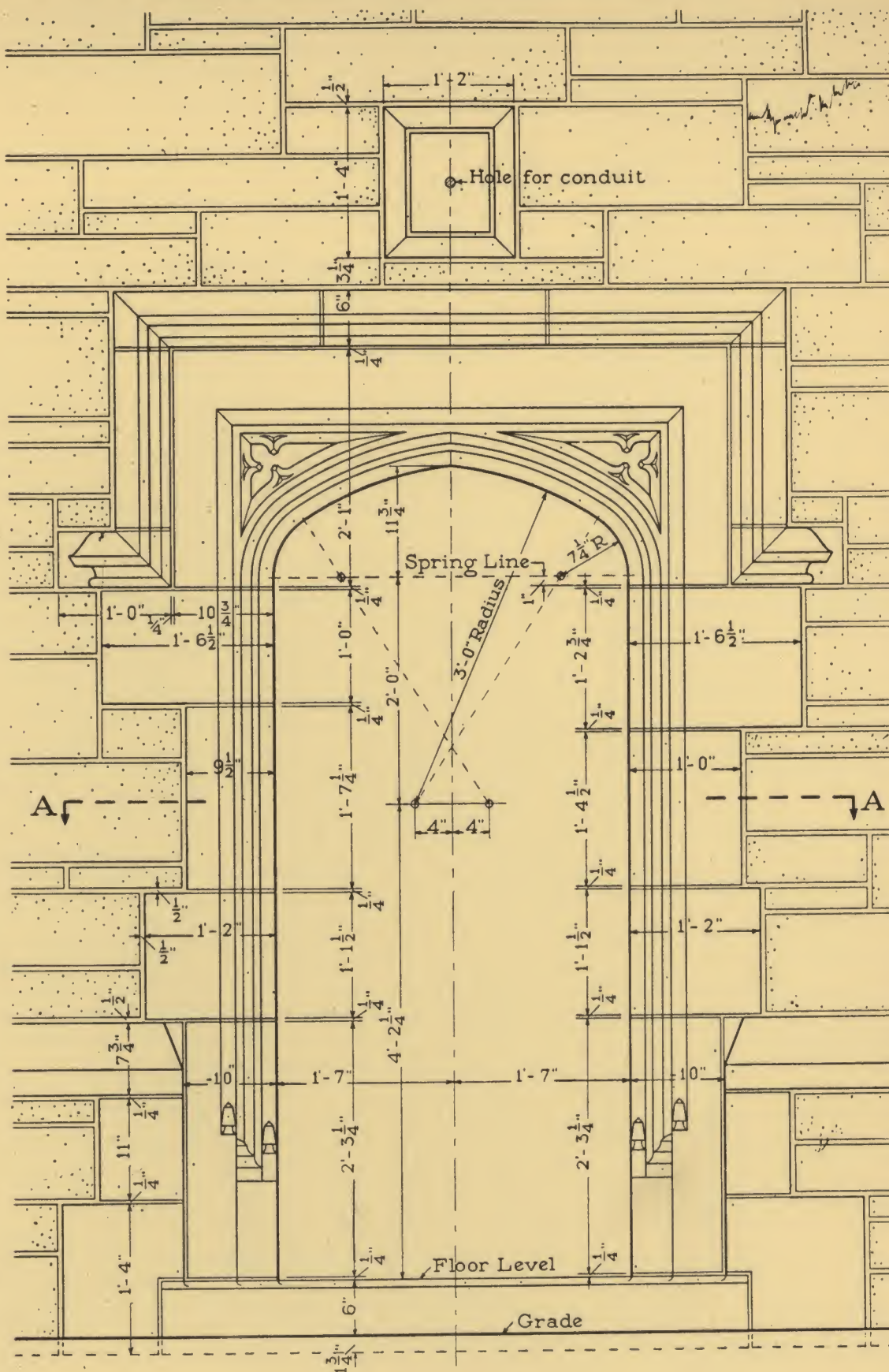
LITHOGRAPHED IN U.S.A.



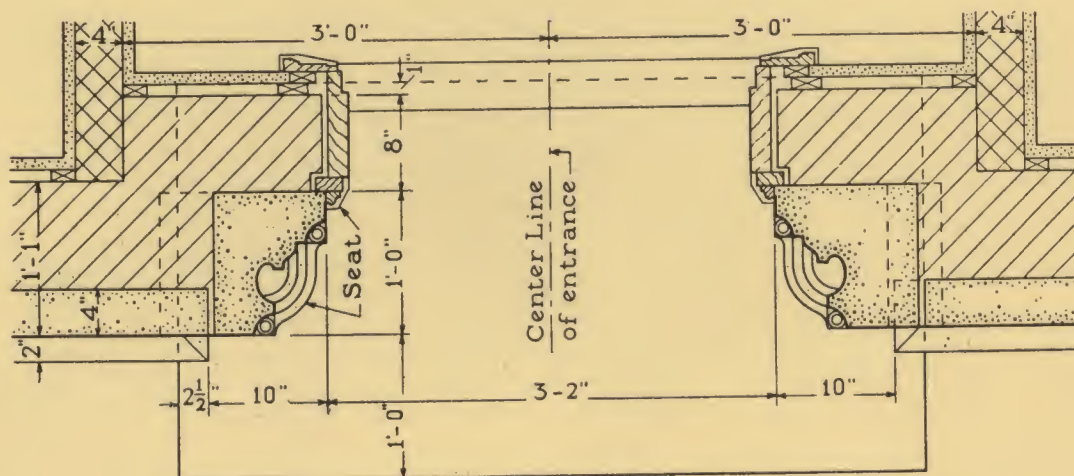
STRUCTURAL DESIGN FOR INDIANA LIMESTONE



SECTION AT CENTER LINE



ELEVATION



PLAN A~A

THE NATION'S BUILDING STONE

GOTHIC ENTRANCE

DRAWING Φ -29

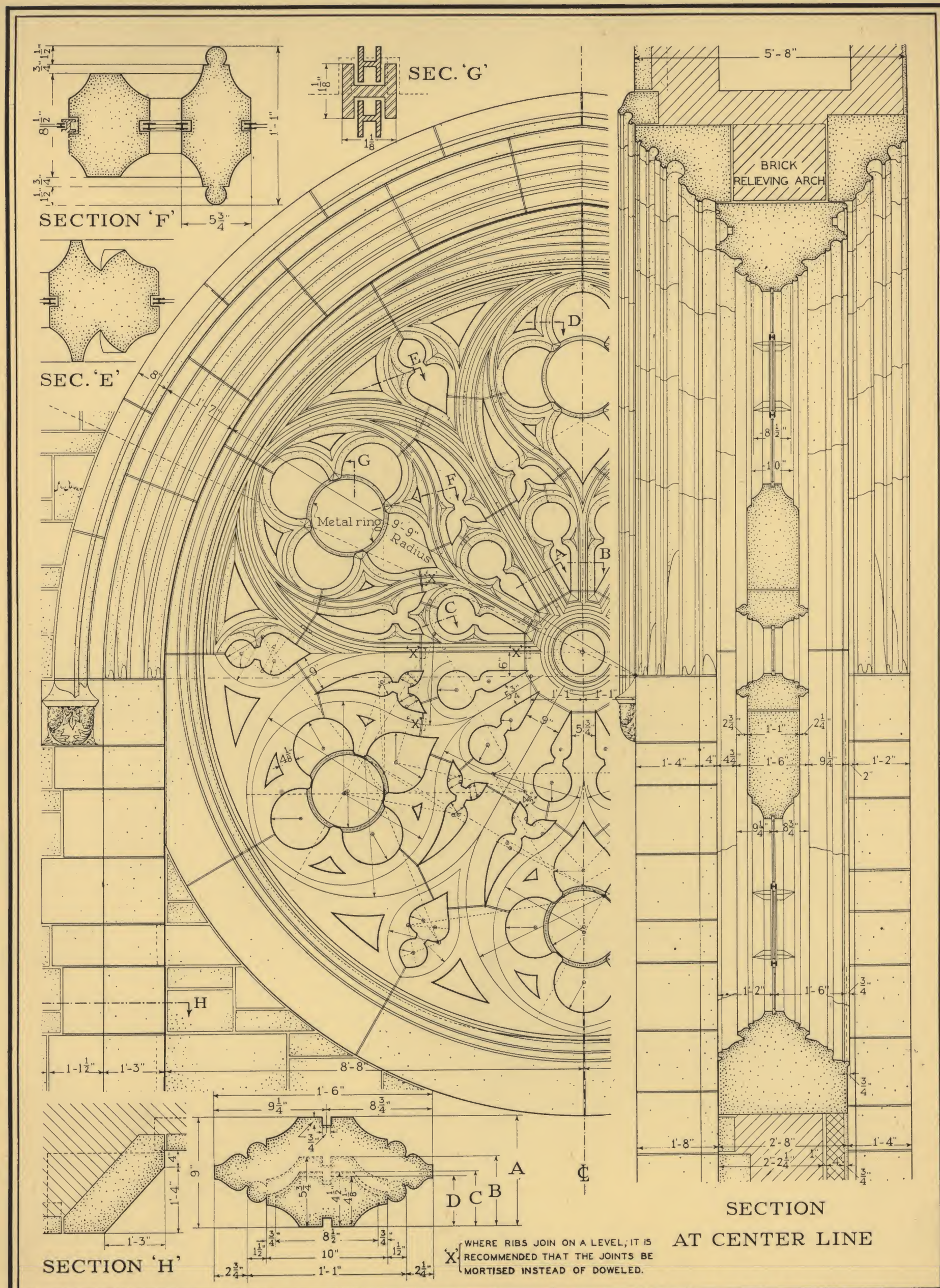
Binder File Classification } 43.4

INDIANA LIMESTONE INSTITUTE - - BEDFORD, INDIANA

"PREPARED AND COPYRIGHTED BY INDIANA LIMESTONE COMPANY, INC." - - "USED AND PUBLISHED BY INDIANA LIMESTONE INSTITUTE BY PERMISSION INDIANA LIMESTONE COMPANY, INC."



STRUCTURAL DESIGN FOR INDIANA LIMESTONE



THE NATION'S
BUILDING
STONE

ROSE WINDOW

DRAWING Φ -30

Binder File
Classification } 44.2

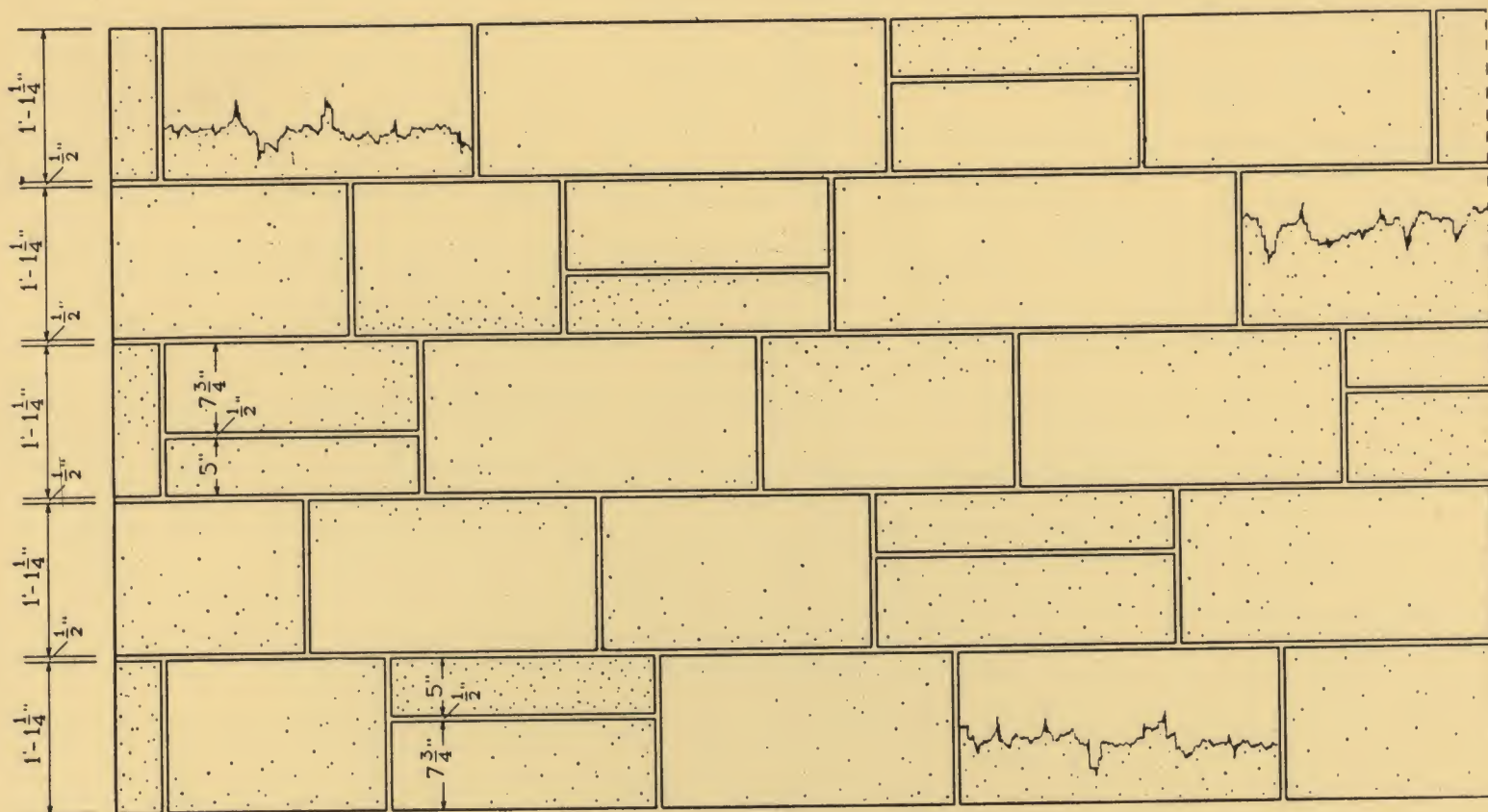
INDIANA LIMESTONE INSTITUTE - - BEDFORD, INDIANA

"PREPARED AND COPYRIGHTED BY INDIANA LIMESTONE COMPANY, INC." - - "USED AND PUBLISHED BY INDIANA LIMESTONE INSTITUTE BY PERMISSION INDIANA LIMESTONE COMPANY, INC."

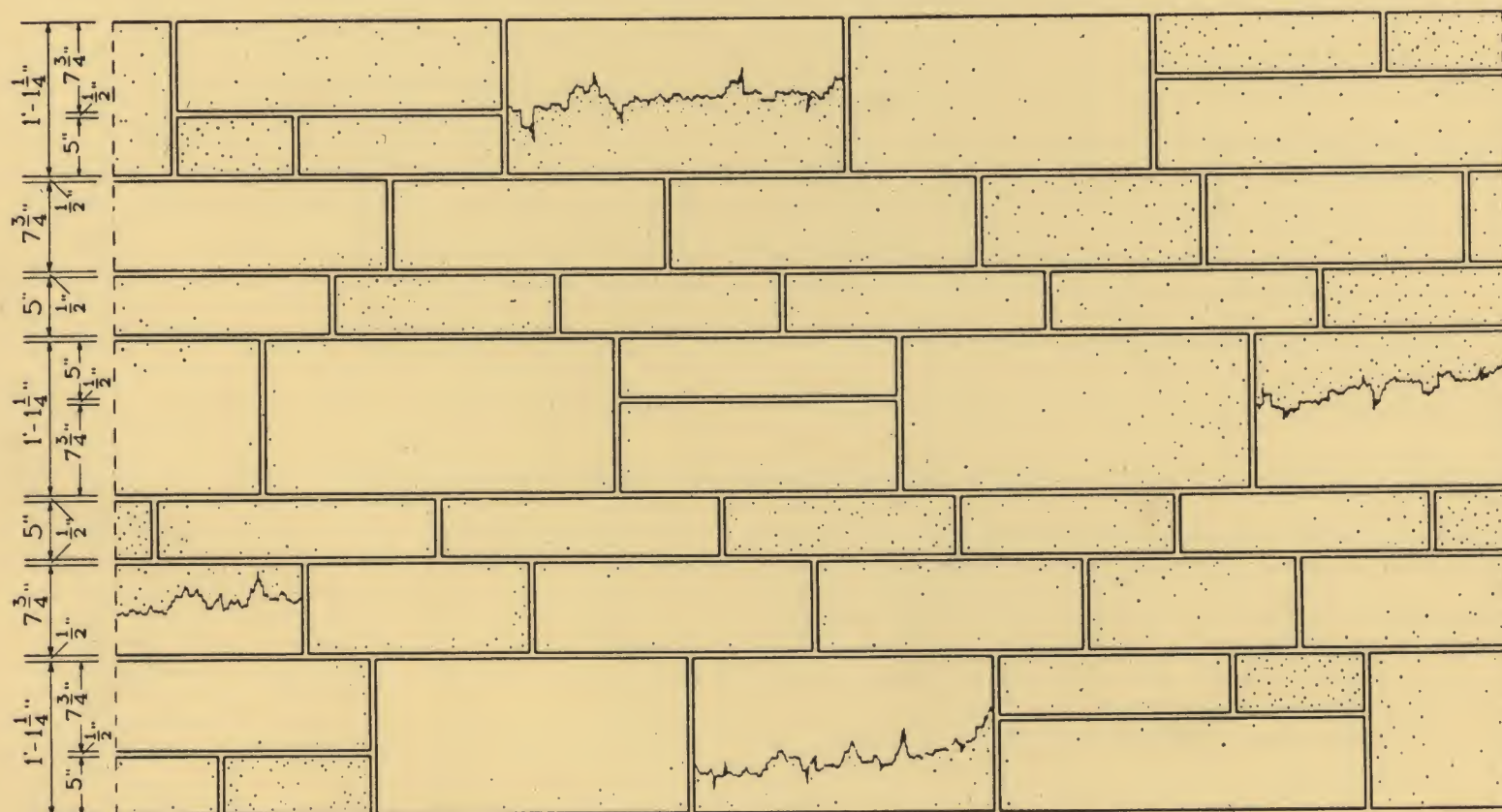
LITHOGRAPHED IN U. S. A.



STRUCTURAL DESIGN FOR INDIANA LIMESTONE



Range work of equal course heights with occasional units divided by horizontal joints; similar to ILCO wall panel No. 20. Joints are one half inch.



Three unit range work with occasional horizontal joints in the higher courses. Joints are one half inch.

Furnished in strips jointed to length at building site.

**THE NATION'S
BUILDING
STONE**

RANGE WORK

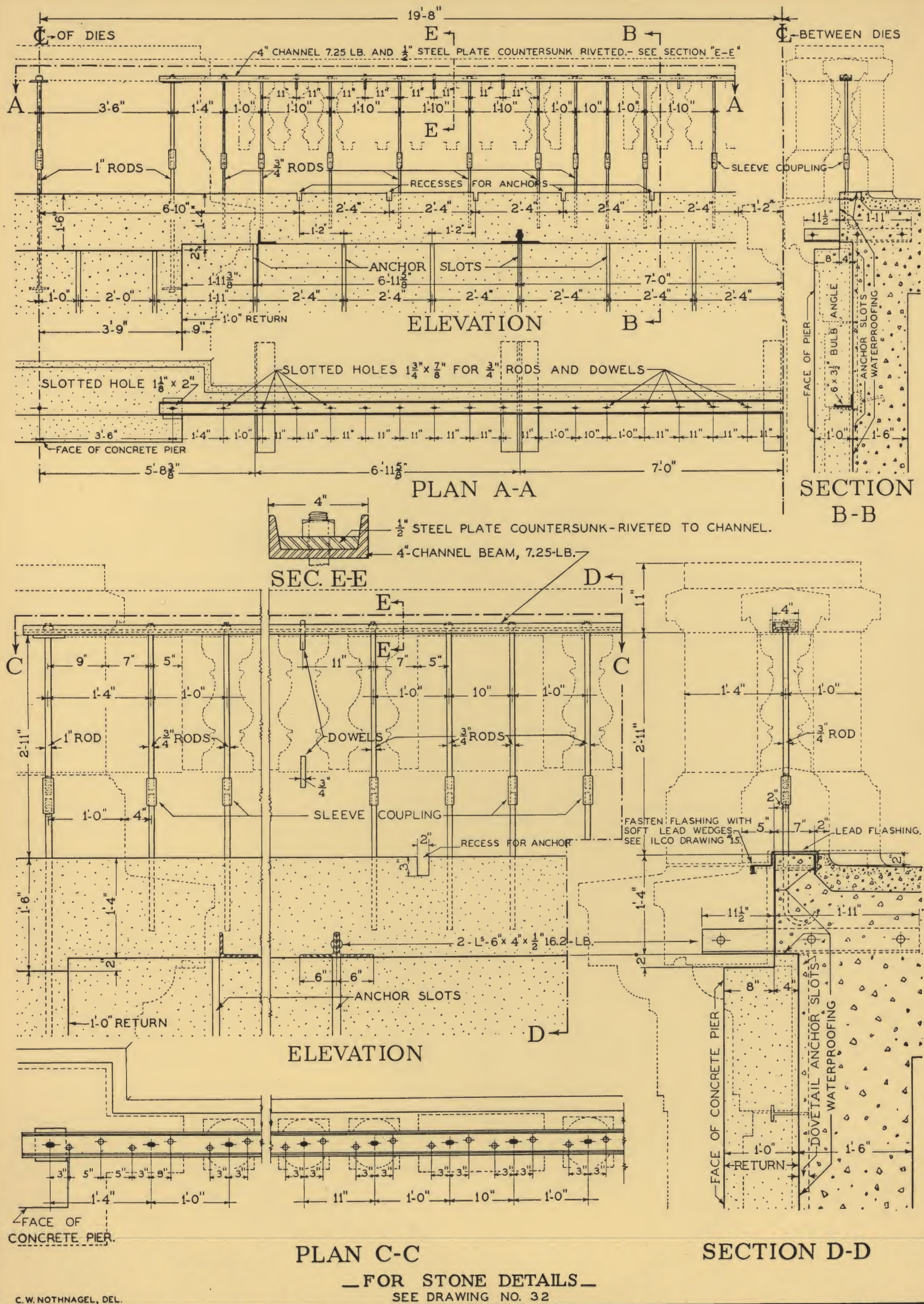
Jointing details of equal and unequal course heights,
random lengths, for walls of ILCO RIPLSTONE

DRAWING Φ -31

Binder File } 85.5
Classification }



STRUCTURAL DESIGN FOR INDIANA LIMESTONE



THE NATION'S BUILDING STONE

BALUSTRADE

CONCRETE AND STEEL SUPERSTRUCTURE
For Viaducts and Bridges, Featuring Special
Construction that will withstand Heavy Impact

DRAWING Φ -33

Binder File } 75.2
Classification }

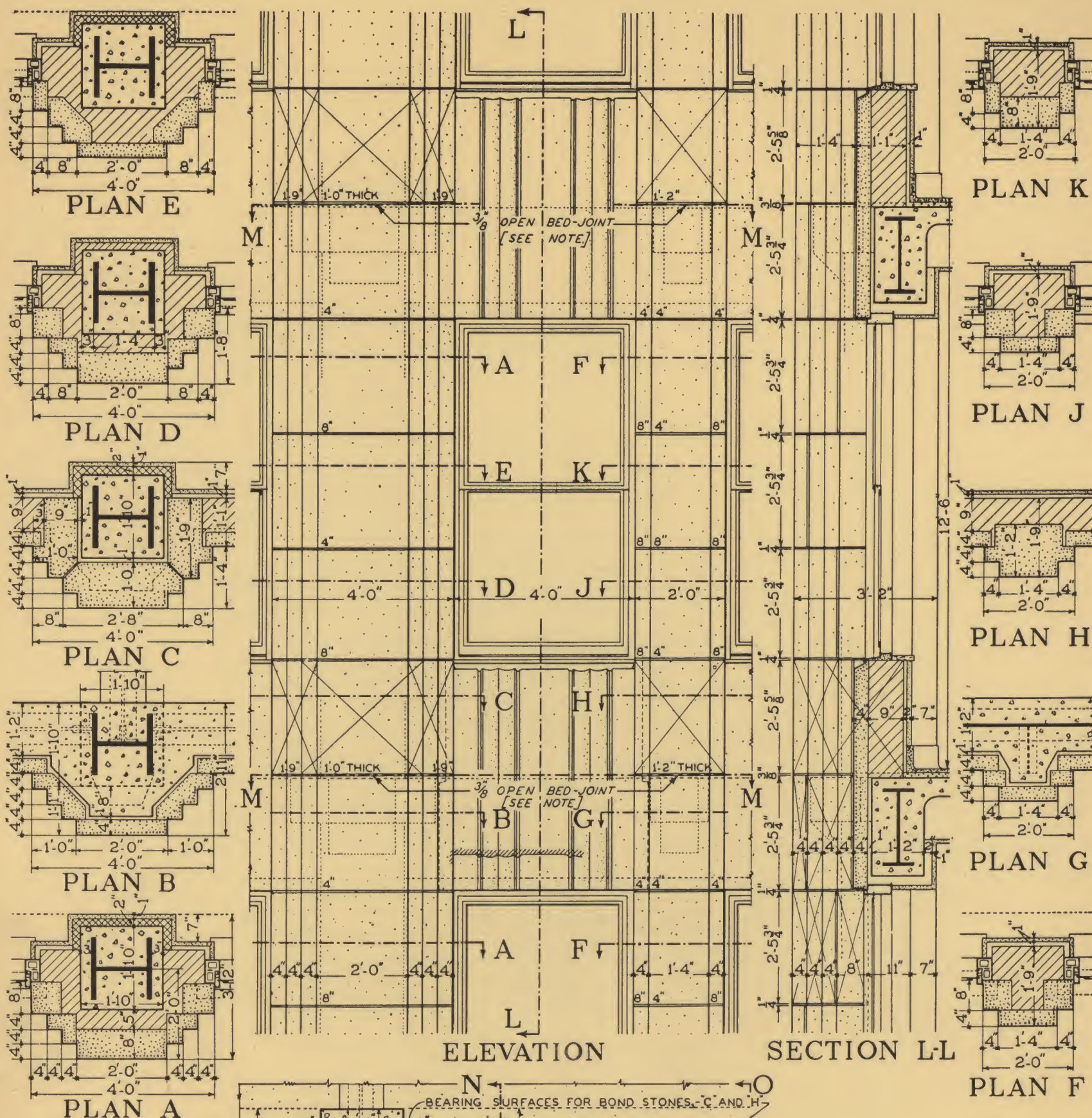
INDIANA LIMESTONE INSTITUTE - - BEDFORD, INDIANA

"PREPARED AND COPYRIGHTED BY INDIANA LIMESTONE COMPANY, INC." - - "USED AND PUBLISHED BY INDIANA LIMESTONE INSTITUTE BY PERMISSION INDIANA LIMESTONE COMPANY, INC."

LITHOGRAPHED IN U. S. A.



STRUCTURAL DESIGN FOR INDIANA LIMESTONE



NOTE:-

- 1- BOND STONES, 'C' AND 'H', TO BEAR ON CONCRETE CORBELS AND SPANDRELS AT PLAN 'M'.
- 2- CONCRETE BEARINGS FOR BOND STONES MUST BE LEVELED TO TOP BED OF STONE COURSE BELOW.
- 3- LEAVE $\frac{3}{8}$ " OPEN JOINT BETWEEN BOTTOM BED OF BOND STONES, 'C' AND 'H', AND TOP BED OF STONE COURSE BELOW, VIS. 'B' AND 'G', UNTIL ERECTION OF STONEMWORK IS COMPLETED.
- 4- CALK OPEN BED JOINT WITH ELASTIC CALKING COMPOUND AND POINT LATER.

C. W. NOTHNAGEL, DEL.

**THE NATION'S
BUILDING
STONE**

STONE SUPPORTS

With Bearings Directly on the Superstructure,
for Buildings with Pier and Recessed Treatment

DRAWING Φ -35

Binder File
Classification } 51.3

INDIANA LIMESTONE INSTITUTE - - BEDFORD, INDIANA

"PREPARED AND COPYRIGHTED BY INDIANA LIMESTONE COMPANY, INC." - - "USED AND PUBLISHED BY INDIANA LIMESTONE INSTITUTE BY PERMISSION INDIANA LIMESTONE COMPANY, INC."

LITHOGRAPHED IN U. S. A.

